

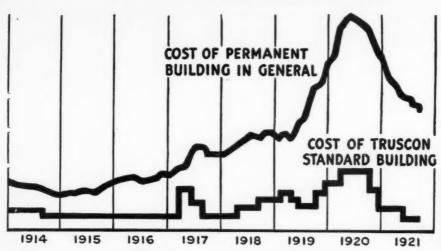
A SOLOMON COME TO RENDER A JUST DECISION.

Independent or non-union printers of Raleigh applied to Judge W. M. Bond of North Carolina, for protection against union printers, who by threatened violence, picketing and other means sought to keep these people from work. Judge Bond rendered a decision so sweeping and just that it merits the attention of the nation. It was as follows:

"Said defendents, their agents, associates and abettors are forbidden and restrained from-

- "1. Assembling in large numbers before or near the places of business of the complainants, or any of them, and engaging in conduct or using any words or gestures calculated to annoy, disturb, or intimidate any of the complainants herein, whether employers or employees, and to prevent them from going about their work with a quiet mind.
- "2. From shadowing, pursuing or following after the complaining employees or any of the officers of the complaining printing companies as they move from place to place in the city of Raleigh, from dogging the steps, surrounding the complainants, or any of them.
- "3. From calling the complaining employees rats, scabs, runts, Bowery bums, or any other insulting names, or from intimidating, disturbing or annoying the complainants in any way.
- "4. From following after the complaining employees or any other employees of the printing companies for the purpose of worrying, harassing or disturbing them, or for the purpose of talking to them on the subject of their employment if said employees shall notify the defendants that they do not want to be talked to on this subject.
- "5. From using any threats, gestures, or engaging in any conduct of any kind calculated to disturb, annoy or put in fear any of the complainants herein.
- "6. From following after the complaining employees or any other employees of the complaining printing companies for the purpose of inducing them to break their contracts to work for the printing companies after they have been informed by such employees that they have made contracts with the printing companies and do not desire to break them."

The address by former Governor Bickett before Judge Bond in behalf of the nonunion printers was a superb presentation of the right of every man to work unmolested, mentally or physically, by union men or strikers. A few extracts from that illuminating address are published elsewhere in this issue.

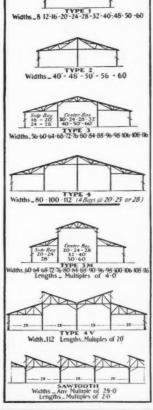


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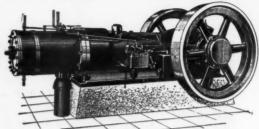
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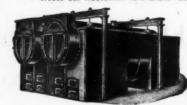
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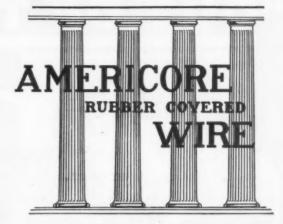
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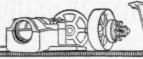
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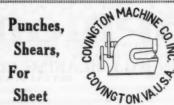


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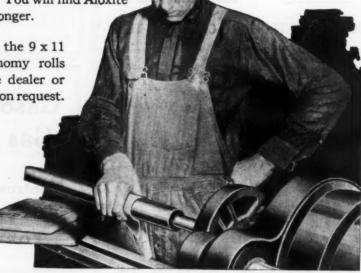
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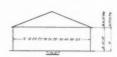
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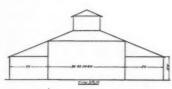


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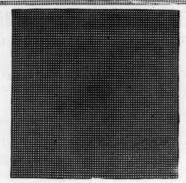
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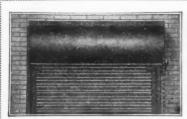


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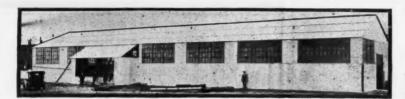
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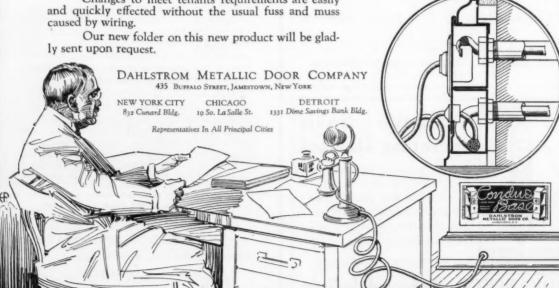
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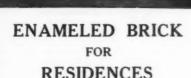
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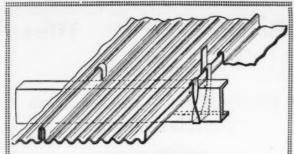
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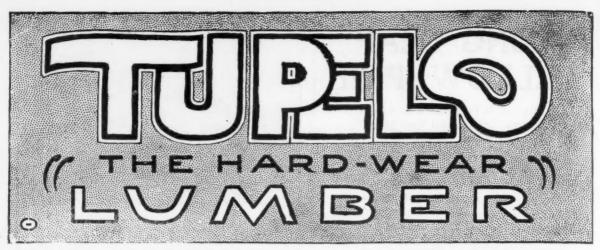
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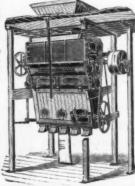
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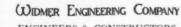
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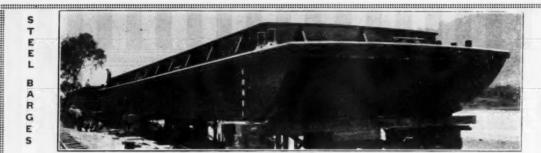
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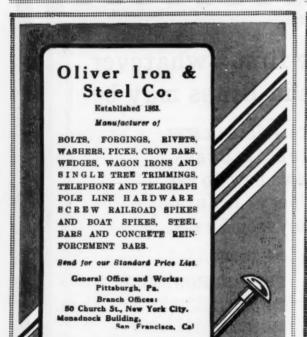
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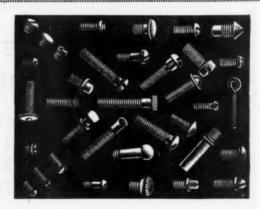
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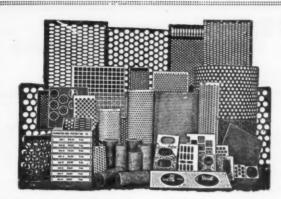
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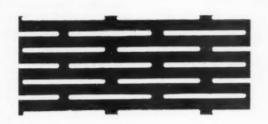
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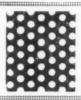
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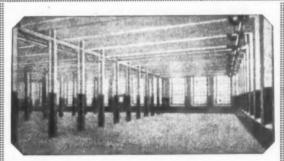
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Volume LXXX Table of	f Contents Number 19
A Solomon Comes to Render a Just Decision	
EDITORIALS	55-62
Government Forest Service Sees Great Future for Wood Pulp Industry of the South. Nation's Honor Vindicated, Not Besmirched, by Passage of Borah Canal Tolls Bill. The "Check-Off" System in Coal Mining is a Cowardly Surrender to Tyranny. The American Spirit Now Asserting Itself, Thank God. A Remarkably Clear and Strong Court Decision Against Physical and Mental Boycott by Unions. Permanent Prosperity Demands a Protective Tariff.	Active Demand and Good Prices for Municipal Bonds. The Headlong Rush of the World Into Bankruptcy Has Been Halted by a Reversal of Financial Policies. The Amazing Plan of Hugo Stinnes to Dominate the World by New Trade Method. Where Will They Land? Liberty for Every American Must be America's Demand. Some Unseen Forces at Work Which We Need to Study. Salaries of Federal Reserve Officials. Secretary Mellon Not a Success as a Financial Letter Writer.
NEWS	ARTICLES
Shall America Underwrite the Economic and Politi Silica Gel, a New Chemical Product With a Broad R Finance, Its Relation to Prosperity, Poverty and C	lange of Industrial UsesBy Dr. B. F. Lovelace 65
Strong Association Formed for Promotion of Orga \$400,000 Bonds Voted for City Railway and Docks Illuminating Court Decision on Limitations of Busin A South Carolina Dairy Industry Development on a Atlanta Building Permits for 10 Months 1921 Equal \$1,000,000 Export Corporation Formed for Handl Comprehensive Plan for Tulsa Water Supply	10
DEPAR	RTMENTS
The Iron and Steel Situation 70 Railroads 71 Good Roads 72 Lumber and Building Materials 73 Mechanical 74 Commendations, Kicks and Comments 74	Construction Department

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Manufacturers Record

EXPONENT OF AMERICA

Devoted to the Upbuilding of the Nation Through the Development of the South and Southwest as the Nation's Greatest Material Asset

Trade-Name Registered in the U. S. Patent Office

Vol. LXXX, No. 19

BALTIMORE, NOVEMBER 10, 1921.

SINGLE COPIES, 20 CENTS,

PUBLISHED EVERY THURSDAY BY THE MANUFACTURERS RECORD PUBLISHING CO. Office: Manufacturers Record Building, Cor. Commerce and Water Sts. BALTIMORE, MARYLAND

RICHARD H. EDMONDS, President FRANK GOULD, Vice-President

VICTOR H. POWER, Treasures I. S. FIELD, Secretary

RICHARD H. EDMONDS, Editor

BRANCH OFFICES

CHICAGO, 11 So. La Salle St. NEW YORK, 30 Church St. ST. LOUIS, 915 Olive St.
WASHINGTON (Whaley-Eaton Service), 456-459 Munsey Bldg.

SUBSCRIPTION RATES:

\$6.50 a year (in advance); six months, \$3.50; three months, \$2 to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. For Canada add postage \$2 a year. For other foreign countries add postage \$5.50 a year Back numbers, if available and not over one month old, 20 cents each. From one month to six months old, 50 cents each; over six months old, \$1 each. In ordering change of address, give old as well as new address.

In order to avoid delays all correspondence pertaining to news or advertising matters should be addressed directly to the Manufacturers Record, Baltimore, Md., and not to individual editors, officers, employes or any branch office.

GOVERNMENT FOREST SERVICE SEES GREAT FUTURE FOR WOOD PULP INDUSTRY OF SOUTH.

WOOD pulp manufacture in the South, fostered and encouraged by the first great success on a large commercial scale by the Southern Lumber Company at Bogalusa, La., has grown at such rapid rate as to receive especial comment in a report just made by the Government's Forest Service. Eleven mills in Southern states produced 144,604 tons of pulp in 1920, valued at \$14,053,540, as compared with 87,339 tons valued at \$3,407,333 in 1916, and at that time the product was considerably less valuable than that produced by the new modern mills. The average cost per cord to Southern mills is given at \$12.91 as compared with national average of \$19.03, and the comment is made by the Forest Service report that a great future is indicated for the wood pulp industry in the yellow pine states.

"LAID AWAY IN LAVENDER."

The \$100,000,000 Foreign Trade Financing Corporation, one of the most ambitious projects undertaken since the armistice for the assistance of American export trade, if not defunct, has been, to use an expression employed by a banker, "laid away in lavender." No official statement has been made that the plan has been abandoned, but it is significant that the same interests who were behind its accomplishments are now putting their support behind the Ter Meulen scheme.-Baltimore News.

What else could have been expected than a complete failure to raise the capital needed for this enterprise when the promoters of it tried to flood the newspapers of the land with propaganda stuff in its behalf based on the statement that the president of this proposed organization would be the present Governor of the Federal Reserve System? When that announcment was made the Manufacturers Record suggested that it would doom the enterprise to failure. That prediction has been fulfilled.

NATION'S HONOR VINDICATED, NOT BE-SMIRCHED BY PASSAGE OF BORAH CANAL TOLLS BILL.

H ONOR, like charity, begins at home and may Providence have mercy on the snobs who are so solicitious about the nation keeping its supposed plighted word to other nations that they totally neglected to consider the dishonor involved in the vicarious sacrifice of their own people!

The Hay-Pauncefote Treaty says:

The (Panama) Canal shall be free and open to all vessels of commerce and war of all nations observing these rules, on terms of entire equality, so that there shall be no discrimination against any such nation or its citizens or subjects in respect of the conditions of charges of traffic or otherwise.

Therefore, say the proponents of honorable dealing, we must not, shall not, permit free passage through the canal of our own coastwise traffic. They insist that "all nations observing these rules" means the United States also, as if we should ever have thought of not observing our own rules, and as if the United States were competent, by treaty, so to legislate concerning what has since become our own territory and part of our coastline.

The fallacy of such a construction, however, is instantly apparent when emphasis is placed on the point that the supposed equality of treatment is to extend also to "vessels of war." If we are precluded, as the quixotic defenders of our honor maintain, from extending freedom from tolls to our coastwise shipping, then obviously we are precluded also from giving our own vessels of war preferential treatment in passing through the canal. If in time of war we allow our fleets to use the canal we must permit the fleets of our enemy so likewise to use it. But the very absurdity of such a construction has been so long evident that no protest has been registered against our fortifying the canal, and the reason we fortify it is to keep enemy ships out. If our honor is involved in the one case it is involved in the other. The fact is it is involved in neither.

Indeed, the paragraph in question goes on to state: "Such conditions and charges of traffic shall be just and equitable." Obviously the addition of such words had been sheer idiocy had the treaty-writers expected that the charges for foreign ships would be the same as for American ships. They would never have assumed that the United States would place unjust and inequitable charges on its own vessels. The whole object of the paragraph in question, as its context shows, was to provide that the United States would not favor the ships of one foreign nation over those of another-that it would not give, say, lower tolls to German vessels than to British vessels. At the time the treaty was negotiated, there was a lot of talk about "favored nations" in tariff legislation. The object was to assure that there would be no "favored nation" at the Panama Canal, so far as our treatment of nations went.

The Senate in voting for the Borah bill did not be mirch but vindicated the honor of the nation, as well as its own intelligence.

THE "CHECK-OFF" SYSTEM IN COAL MINING IS A COWARDLY SURRENDER TO TYRANNY.

THE "check-off" system is the Gibraltar of union labor professional agitators in the coal regions of the United States. If is their fisc and treasury, and by its means they underwrite their campaigns of disorder. It is as if the operators of the coal mines of America had actually agreed to finance attacks on the integrity of their own properties.

The "check-off" system, reduced to its elements, simply means that in every union mine the operator of the mine agrees to and does deduct each week from the pay due each miner the union dues and assessments. The gues of all the miners are paid in bulk by the operator. He is the collecting agent for the union.

It is notorious that thousands of men, outraged at the financial impositions of the unions, would refuse to pay dues did they possess liberty of action. But that liberty has been taken from them. Their dues are to them what taxes are to the ordinary citizen—an impost that cannot be avoided.

Vast riches thus flow into union treasuries. And what are these great sums used for? Not for the sustenance and help of the members of the union, but in large part for the subsidizing of skilled organizers and agitators, whose business it is, whose profession it is, to stir up trouble. When there is no trouble they have no jobs. Their livelihood depends on their ability to arouse discontent. They are to the coal industry what the yellow fever mosquito is to a community. No mining property is immune to their attacks. They are the living product of the "check-off" system, which fills their bellies with pap.

No more monstrous and tyrannical system was ever imposed on industry or country. It is the antithesis of freedom. It not only enslaves the rank and file of coal miners and corrupts their leaders, but it destroys also the manhood of the operators who acquiesce in it. It is the tribute paid for a supposititious peace to as arrogant a set of pirates as ever blocked the tides of industry in the Mediterranean from the shores of Tripoli. The coal industry, indeed, has long needed a Decatur. It could not find him in its ranks, but the necessity of the times has brought him forward in Indianapolis. Judge A. B. Anderson, whose courage in a hundred cases has endeared him to all who love freedom and justice, has branded the whole infamous arrangement with the glowing iron of Americanism. The "poor old consumer", says the Judge, has been squeezed too long between this combination of operators and miners. "I am going to stop this 'check-off' now!"

He has issued an injunction accordingly. It does not declare the "check-off" in itself to be illegal, but the employment of the funds levied through it. It is a distinction without a difference. The funds never have been and never could be legally employed. Why, they have been used to finance civil war in West Virginia, aye, to drive the operators of the independent fields there into acquiescence in the supineness which has characterized operators everywhere.

The cry of tyranny is already going up—tyranny of the courts. But where has the true tyranny been? The rank and file of miners, left to themselves, would doubtless hall the court's action as their great deliverance. It is the agitator who cries to high heaven because the strong arm

of society is reaching in to tear him from his spoil and prey. Is it tyranny for the law to protect the great public, the masses, the millions of consumers of coal? It is tyranny that is swept aside by the Judge's order. It is liberty that he is enthroning.

Let all good men thank Providence that the edicts of sound Americanism can still ring clear from the established tribunals. There are not mollycoddles in all places of authority, and however many compromisers there may be in Washington, there is one in Indianapolis, who does not answer to that description. If the superior courts sustain, as we trust they will, the clear pronouncement of Judge Anderson, then in truth will a revolution have been wrought in the coal mining industry and peace again may ultimately reign there. Although overruled temporarily the issue has been made and we believe that Judge Anderson will ultimately be fully sustained.

On such an issue the country should not fear a strike or run to cover to avoid one.

THE AMERICAN SPIRIT NOW ASSERTING IT-SELF, THANK GOD!

North Corolling North Carolina, commended elsewhere in this issue of the MANUFACTURERS RECORD, the legislature of Alabama has passed a bill prohibiting picketing and boycotting by strikers and providing for the conviction of persons who are responsible for utterances, either in print or in public addresses, inciting to riot or disorder. In supporting the bill, Representative Benners declared that if he could make one suggestion to labor it would be "Hang all of your orators." He said labor's speakers were responsible for much of the trouble caused during strikes and mentioned the addresses of Van Bittner during the Alabama coal strike. He read from Bittner's Blocton speech after the strike was supposed to be settled. and referred to the fact that Bittner had, in his address, said: "If there are any scabs in Blocton in 30 days from now you men ought to be run out of the State." The report of the speech said Bittner asked what the audience would do if a rattlesnake should come into their midst, and when someone answered, "Kill him," Bittner told them a rattlesnake had never done them half as much harm as the scabs had done, according to the report of the speech as read.

Alabama has seriously suffered from lawlessness engendered through activities of radical union agitators, most generally from the outside, until there is a deep-seated determination to eradicate the evil and its causes. The state of public opinion there is further indicated by the passage of a bill holding labor unions to a strict accountability for their acts. The bill provides means for the maintenance of suits against unincorporated associations, and although labor representatives strongly opposed its passage, the measure received large majorities in both the senate and the house.

Not only throughout the South, but all over the country as well, there is a growing determination by the people that the encroachments of organized labor on the freedom of the individual must cease. Furthermore, there is gratifying evidence, shown in the public acclaim of Judge Anderson's decision against the United Mine Workers, in their attempts to bulldoze the Mingo Coal Miners into joining their union. that sentiment is crystallizing to demand that liberties heretofore surrendered on Union labor pressure and threats shall be restored to the people.

The decent sentiment of the whole country is in revolt against the tyranny of organized labor, against its insatiable greed and against its incessant demands for discriminating class legislation. Thank God for the rising tide of self-asserting Americanism that is sweeping over the land!

A Remarkably Clear and Strong Court Decision Against Physical and Mental Boycott by Labor Unions.

FORMER Governor T. W. Bickett of Raleigh, N. C., recently delivered a speech in behalf of the right of men and women to work in an open shop, unmolested in any way whatever by union laborers, which is of exceptional interest to every man in the country. Judge Cranmer had issued a restraining order against three printing trades unions of Raleigh and all their officers, members and associates, returnable before Judge Bond at a later date. On the return day the defendants appeared and vigorously opposed a continuance of the injunction, but after a full hearing Judge Bond continued the injuction and signed an order against the printers who had molested non-union men as follows:

NORTH CAROLINA WAKE COUNTY

In the Superior Court

MARGUERITE MCGINNIS AND OTHERS

RALEIGH TYPOGRAPHICAL UNION AND OTHERS

This cause coming on to be heard at Raleigh, N. C., on September 3rd, 1921, on motion of plaintiffs to continue re-straining order to the hearing, both sides having filed affidavits and being represented by counsel, defendants moved to dis-miss the action as to the defendants, Labor Unions, upon the ground that they are not corporations, which motion the court overruled and defendants excepted; and certain of the defendants moved to dismiss the action as to them for that they were minors, which motion the court overruled and said minors excepted, and the demurrer in the being filed and overruled by the court and exception noted, after hearing the evidence and argument, it is adjudged, ordered and decreed as to each and all defendants properly before the court as follows:

Said defendants, their agents, associates and abettors are forbiden and restrained from-

Assembling in large numbers before or near the places of business of the complainants, or any of them, and engaging in conduct or using any words or gestures calculated to an-noy, disturb, or intimidate any of the complainants herein, whether employers or employees, and to prevent them from going about their work with a quiet mind.

2. From shadowing, pursuing or following after the complaining employees or any of the officers of the complaining printing companies as they move from place to place in the city of Raleigh, from dogging their steps, surrounding the complainants, or any of them.

3. From calling the complaining employees rats, scabs, runts, Bowery bums, or any other insulting names, or from intimidating, disturbing or annoying the complainants in any

4. From following after the complaining employees or any other employees of the printing companies for the purpose of worrying, harassing or disturbing them, or for the purpose of talking to them on the subject of their employment if said employees shall notify the defendants that they do not want to be talked to on this subject.

From using any threats, gestures, or engaging in any conduct of any kind calculated to disturb, annoy or put in fear any of the complainants herein.

6. From following after the complaining employees or any other employees of the complaining printing companies for the purpose of inducing them to break their contracts to work for the printing companies after they have been informed by such employees that they have made contracts with the printing companies and do not desire to break them.

That the restraining order issued in this case, as modified

herein, is continued to the hearing.

W. M. BOND. Judge Holding the Courts of Seventh Judicial District.

In this ruling Judge Bond enjoined the union men who had sought to interfere by words or gestures calculated to annoy, disturb or intimidate any of the non-union complainants and thus prevent their going about their work with a quiet mind. He enjoined them from shadowing, pursuing or following after these complaining employees, or from dogging their

footsteps and surrounding the complainants or any of them. More than this he restrained them from calling the complaining employees rats, scabs and other insulting names which union men have used so freely in denunciation of non-union or free men.

The injunction is one which should set a standard for all judicial decisions on this great issue of the right of men and women to work without the molestation, mental or physical. against the non-union or free men.

In his address in behalf of the plaintiffs who sought this injunction, former Governor Bickett of Raleigh stated that it was the duty of all good men to do everything possible to decrease rather than increase irritation between different classes. "The man who stirs up strife," said Governor Bickett. "between the white man and the black man, between the man who lives in the country and the man who lives in the town, between the man who works with his head and the man who works with his hands, is an enemy to the peace and prosperity of us all. Every beat of my heart is kindly towards the men who are dependent upon their daily work for their daily bread," and he added that he endorsed the sentiment of the great philosopher Thomas Carlyle, who said that "work" is the greatest word in the English language, "and my hat," said Governor Bickett, "is always off to the man who does a good job."

"I am deeply and irrevocably in sympathy with the aspirations of working men to better their condition by pooling their resources. I believe in corporations. They are a blessing to mankind. In a corporation ten thousand men pool their money, they frame a compact, intelligent organization, and produce for the world comforts and blessings it could not otherwise enjoy."

"A labor union," said he, "is essentially a corporation of the highest order, for in it men pool their lives. The members of the labor unions have brains to sell, skill to sell, life-blood to sell. The man who does not feel in his heart that labor is entitled to this right stands convicted of believing in his soul that a corporation whose capital is money is a finer and diviner thing than a corporation whose capital is men.'

"But," added Governor Bickett, "the surest way to lose a right is to abuse it. In the Sixteenth Century the Church of God came desperately near being utterly destroyed because its high priests persecuted those who dared to disbelieve. If I were the deadly enemy of organized labor, instead of its devoted friend, I would not attack it, I would not persecute it, but would advise it to persecute others. I would insinuate myself into its confidence, I would make it drunk with a sense of its own power, and then in flaming, frothing language I would counsel it to ride roughshod over all who dared oppose it. I would stir up in it the evil spirits of selfishness and gread, I would poison its mind with vanity and its heart with hate, and then having sown in it the seeds of death, I would climb into the seat of the scornful and grimly await its tragic dis-

In further presentation of the case Governor Bickett said:

"This case is something new under the sun. For the first time in legal history a band of working men come into a court of equity and pray for protection in their right to work. Heretofore injunctions have been sought by capital against labor; here labor, at work, begs for protection from labor that is idle. Therefore, the one big and burning question in this case is, has a man who wants to work in North Carolina the right to do so with a quiet mind? Let us not get away from that, your Honor: has a man, who is able and willing to work, the right to do so, and be at peace?

When our fathers framed the great Declaration of Independ-

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ence, they wrote it down that all men are endowed by their Creator with certain inalienable rights, and that among these are "the fruits of their own labor and the pursuit of happi-This declaration is incorporated in the first section of the North Carolina Bill of Rights. Behind this great bulwark of human rights the working men I represent stand. From behind it they stretch out tired and toil-stained hands to this court and plead that they be allowed to pursue their own happiness and enjoy the fruits of their own labor. The evidence in this case is overwhelming that they are not permitted to enjoy anything. Around the places where they work—as sacred as places of worship—their enemies hover in force and keep a relentless vigil. Even while they bend to their toil they cannot escape from the feeling that they are besieged. When they leave their work, they are menaced by threatening gestures, they are assailed by taunts and epithets, they are shadowed like criminals. The sleuths are forever on their trail; on the streets, in the stores, to their homes, to their work, to their play, day and night they are shadowed until they feel like the hunted stag who hears the bloodhound bay on his track. Such a system will break down the nerves of the strongest man; the strikers know it and that is their common and deadly objective.

"In discussing this very subject, Dr. James K. Hall, a great alienist, a native of North Carolina but now at the Westbrook Sanatorium in Richmond, says:

"What, may I ask, is the object of the picketers, the unionists, if it be not to induce in the minds of the strikebreakers this condition which we call fear, so that they cannot work? Fear is the result of an assault on the individual's emotional being. Fear is not an imaginary state, it is not a condition affecting the mind and the feelings alone, but it is a condition in which the whole being-the entire personality- is disorganized, and such a state cannot be dismissed or corrected by a wave of the hand. Fear means subjugation of the mental and of the physical being so long as the fear lasts. If the law forbids assault upon the physical being, if it punishes attack on one's character-slander or libel-why does it permit assault upon one's emotions with the production of that degree of inefficiency or helplessness which results from fear? Why does the State disallow disturbance of religious worship and allow disturbance of the peace of mind and happiness and efficiency of one seeking work or of one actually engaged in labor? How can the State guarantee life, liberty and the pursuit of happiness and yet permit a citizen or a group of citizens to be denied the right to work—the only way in which a living may come unless it be by stealing? Why should these things be in a State which thinks of itself as law-abiding and as affording peace and protection to its citizens.

"The defendants in this case believe in their hearts, and have been acting on that belief, that no man has a right to work in a print shop in Raleigh without their permission.

"I have said that labor has a right to organize, the right to sell its skill and energy collectively in open market. For that right I will fight with organized labor to the last ditch. But I will turn and fight against it just as hard when it dares to say that the humblest non-union worker in all the land hasn't as much right to sell his labor to whom and for what he may see fit, as a union whose membership girdles the earth. The right to work is as sacred as the right to worship and the law is quick and powerful to protect this right.

"It is generally known that I am a Democrat, and believe in the Democratic party—which is a sort of political union. But if the Democratic party should in convention assembled declare that as a business man I must not employ any man unless he joins the Democratic party, I would bolt the convention in thirty seconds.

"I am a member of the Episcopal Church, and I hope in reasonably good standing. I love my church, but if it should adopt a canon that I could not employ anybody to work for me except an Episcopalian, the next day I would be looking around for a new brand of religion.

"The point that I am trying to burn into the conscience of the court is that a man has a God-given right to work, a right that can neither be denied or impaired by his refusal to join any organisation.

"When the president of a cotton mill comes to me, and acting for a thousand stockholders, sells me the output of his mill, he is acting within his rights. But if he undertakes to make me agree that I will not buy cotton goods from anybody else, he gets out of bounds, and under the law of North Carolina is a criminal.

"I regret the necessity for taxing your Honor's strength in such killing weather as this, but I congratulate you upon the opportunity before you to render your generation an immortal service. I have an unclouded faith that the judgment of your Honor will be a ringing proclamation that in this dear State the humblest citizen can go to his work in the blessed assurance that none will dare to molest or make him afraid."

PERMANENT PROSPERITY DEMANDS A PRO-TECTIVE TARIFF.

In a recent letter to the Manufacturers Record commenting on an editorial in our columns in which the great value to the country of the rise in cotton was pointed out, the Dixie Consolidated Graphite Company of Birmingham, Ala., while agreeing with this view holds that something else is necessary to the restoration of a greater and more permanent prosperity for this section and for the country. That essential is a tariff law so framed that adequate protection will be afforded the raw and manufactured products of this country which are now menaced by foreign competition. Until such protection is provided our prosperity is sure to be unevenly distributed and of uncertain tenure. The company says:

"The advance or inflation, as you may call it, in the price of cotton means everything to this country and if we can get our Congress to give us a protective tariff on raw materials, in which the South is interested, it will mean the bringing back of prosperity sure enough. We are interested in an infant industry here that is a staple product and is absolutely essential to this nation in times of war as well as in times of peace. The prosperity of three countries in this State is dependent on our getting the tariff on graphite. The quality of this graphite has been proven to be the equal of the best in the world and we are asking for enough tariff to enable us to compete with the cheap graphite produced in Madagascar and Ceylon. An adequate tariff will mean the operation in this State of about thirty graphite plants and in the United States about fifty-odd plants. Unless this tariff is granted these plants will be closed down and junked with the possible exception of two or three."

ACTIVE DEMAND AND GOOD PRICES FOR MUNICIPAL BONDS.

A SUMMARIZATION of sales of municipal bonds throughout the United States and Canada for the ten months of the calendar year 1921 up to October 31, shows that an aggregate of \$946,504,000. have been sold as compared with an aggregate of \$627,494,000. during the same period of last year. Sales in October were more than \$108,000,000 as compared with about \$62,500,000 in October 1920. In October 1919 sales totaled \$117,000,000, but the aggregate for the first ten months of that year was not quite \$635,000,000, and if the present supply and demand continue the total for 1921 must go to \$1,000,000,000 or more by the end of the year.

It is noted in New York that the tendency is for prices of municipal securities to continue to advance, a steady demand for such bonds existing among investors and the market for them is described as being far from overstocked. There was a large amount of State bonds issued during October,—more than \$30,000,000.

Thus, 1921 will be by far the biggest year for sales of municipal bonds, the ready sale of which should encourage all towns, cities, counties, States and other political divisions of the country to get busy, issue and float their bonds and proceed without hesitation with public improvement plans, the execution of which immediately will without doubt be more economical to them in the long run than pursuit of a policy of waiting for lower costs of construction, because the advantages to the people of use of the improvements and the increase revenues therefrom will exceed any possible saving which might be made by deferring work, and we expect to see an advance in the cost of work and materials.

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The Headlong Rush of the World into Bankruptcy Has Been Halted by a Reversal of Financial Policies.

M AN proposes; God disposes.

On the eve of the disruption of the greatest of the ancient empires a moving finger traced in letters of fire the prophecy of the event. Less vividly, but none the less indelibly, the headlong rush of a whole world into bankruptcy has been written into the records of recent months and no prophets were required to interpret the writing. The policies of the Federal Reserve Board, having destroyed values the country and the world over as in a consuming fire, have been reversed. It was that or stark and utter ruin.

Not frankly, as behooves men in high position, but grudgingly and after long delay, overwhelmed by the pressure of economic fact and coerced by the executive power, the Federal Reserve Board at last has loosened to some extent its stranglehold on business and production. It permits a rediscount rate as low as 41/2% in the Boston district. It enables the War Finance Corporation to bring its current rates down 1/2 per cent. It allows, at last, reductions which Secretary Herbert Hoover describes as "pointed milestones in the progress toward recovery."

We accord to Governor Harding and his associates whose basic program is thus utterly repudiated no measure of credit for conversion. They were stiffnecked in their arrogance when they began their assault on credit and they continued to be stiffnecked until it was entirely obvious that they would be kicked out of office unless they foreswore their own program. However great their sincerity in the initiation of their ruthless and destructive warfare against prosperity-assuming that they were sincere-it had become abundantly evident to them months and months ago, as their own mouths testified. that they had lost control of the situation. By that was meant that ruin had followed faster and in a denser volume than Governor Harding had anticipated. They had initiated their policy when the country was in the flood tide of prosperity. They reduced it within a few short months to a condition of panic. They bore in their hands the standards of the pawnbroker and they practiced usury as never before it was practised by any responsible Government in the history of the world. All history was against them, and all human experience. They said the crying need of the world was production and that they would increase production by damming the credit reservoirs. What they did was to dismantle the fleets of the nation, turn factories into habitats for spiders, cut the cotton crop in two and curtail production in virtually every basic raw material on the face of the earth.

They almost brought into collapse the credit of the Government itself. We said that the usurious habits of the Board were equivalent to the Government spitting upon its own war securities. Look at the prices of Liberty Bonds today and compare them with the bargain-day quotations when the Governor Harding program was in its zenith! But there is not behind them the same record of production, the same mighty volume of labor. One thing and one thing only had forced them down and that was the deliberate intent of the Federal Reserve Board. One thing and one thing only is bringing them back to par and that is a reversal of the Board's policies. If the Government could wreck its own securities, with equal ease it could wreck all private securities. And so it did

We had piled gold into the United States until the reserve had become an international scandal. The cries of protest were beginning to be heard around the globe. Gustav Cassel, the great European economist, speaking with the utmost deliberation, after declaring that ruthless deflation was responsible for unemployment and non-production, had declared that gold

had ceased to have a fixed value, could hardly longer be used as a money standard and that the possession so vast a part of the monetary gold of the world by the United States impaired even the possibility of adhering to the gold standard. What did this mean? Simply that the Federal Reserve Board had so hoarded gold, declining to permit it to perform its normal credit functions, that the world was in revolt. do not, we trust, exaggerate the financial intelligence of the men responsible for the drastic deflation policy when we say that it had finally dawned on them, too, that they had pulled the string too tight. The rest of the world was heading fast toward a new money standard. It was running with equal swiftness toward bankruptcy. So wrote the finger of fact on the page of current economics. Easier money and a hope of solvency, or tight money and a general collapse. Even obstinacy could not refuse a choice.

How disingenuous now appear the long and elaborate defenses of its course which the Federal Reserve Board indulged in! The confession of its error is the reversal of its program. It may search the vocabularies from end to end and buy as many writers as are for sale, but never again can it foist its fallacies on an intelligent people, because all that they said would happen did not happen, and all that they said would not happen did happen. They have left the black horse on which they rode and jumped to the white one. They have headed it back to the highways they deserted and will spend the approaching months in trying to get back to the old trail that they abandoned.

The world could never have paid even the interest on its debt under the credit and currency terms the Federal Reserve Board proposed. But while the Federal Reserve Board has been learning that obvious fact, the pawnbrokers have been taking their toll the world over, and the railroads alone will pay millions, for years to come, in exorbitant bonded interest that the Board required of them.

The rate of discount is not yet right. It is still scandalously high. But it will go down. It is part of the program, we believe, of the gentlemen who are engineering a formula for the economic reconstruction of the world to bring about a new era of what they will later describe as inflation. The stage must be set right. That is what citizens not ordinarily suspicious will believe. How do they know, if they borrow money now on decent terms, that the Washington Board will not again suddenly and ruthlessly raise the rediscount rate to ruinous heights without warning? What confidence can business men have in the permanence of financial conditions when the power arbitrarily to change them is vested in a tiny group of bureaucrats in Washington? And the more so when the chief of those bureaucrats is the very person who turned the trick before? Can business get anywhere without confidence? Can business have confidence in Governor Harding and his associates? By their acts they have confessed to an error in judgment, long persisted in, the consequences of which have been so overwhelmingly destructive that it is remarkable they have the hardihood to show their faces, much less continue to pose as financial statesmen. Until these men are thrown out of office, business cannot and will not recover. And the burden of them is passing to the shoulders of President Harding who, for some unknown reason, retains them in office.

When we seemed to be a voice crying in the wilderness, we never once doubted that events would fully vindicate and overwhelmingly justify the campaign of education which we have waged against the Federal Reserve Board's warfare upon world prosperity. Economic laws are, in truth, unchangeable and unchanging. So, when the Board talked blithely about its own autocratic and arbitrary decrees as the mere evidences of natural law, we knew that the actual natural law, so utterly different, would prove itself so completely that all men could understand. And so it has. "Milestones in the progress toward recovery," says Secretary Hoover. Millstones removed from the neck of business! The barriers that ought never to have been erected are being torn away, that is all.

So complete is the demonstration of the Board's betrayal of prosperity that Congress can no longer, in mere decency, refrain from the enactment of remedial legislation. It should prohibit any change in the rate for money, as it does in the rate for transportation, without due notice and full hearings. It must take from a little board of seven men in Washington their unlimited control over the fortunes of men and over the industrial well-being, as it happens, of the entire world.

THE AMAZING PLAN OF HUGO STINNES TO DOMINATE THE WORLD BY NEW TRADE METHOD.

Our correspondent who is in close touch with the economic and political activities of the Continent, sends us a brief outline of some of the stupendous operations for controlling world trade now being worked out by Hugo Stinnes of Germany, one of the master minds and one of the most sinister influences in world affairs today. Our correspondent writes:—

"An interesting but superficial interview with Herr Hugo Stinnes appeared recently in an American weekly. It did not give the Stinnes industrial program for the future. Let us present this Stinnes program, necessarily brief because of our limitations of space, but so summarized that all who run may read.

"Stinnes plans to establish what he has himself aptly described as a 'dach' trust. Dach in German means roof. plan is a 'Roof' Trust, meaning a trust of trusts; a trust which will control every industry in Germany, so that German industry will respond in all its branches to instruc-tions and orders sent out from a common center, Stinnes being in the center. A cobweb with its radii and junctions describes it perfectly. His expenditure to date in bringing about the realization of his plan has been, by a system of pyramid financing, approximately \$87,500,000,000. The object is to enable all German industry to act as one united corporation. Thus Stinnes contemplates that if one German industry is unfairly dealt with by foreign countries, the united power of the whole of German industry can retaliate with tremendous effect. Once the Roof Trust is realized and there should come legislation in America barring a particular German product the plan would be for orders to be issued to all industrial sections of the trust to make no purchases in America or to supply nothing to America of which she stood in need and could not get elsewhere.

"This would transform Germany from a Government into a great business combine with the power of the trust of far greater political and economic power than that of the Govern-He is assisted in bringing about his plan by the 'Plan Industry System,' inaugurated by the Government itself after the revolution. The Plan Industry System is the practical working out of socialistic policy for State nationalization of When the socialists came into power they found the scheme they had advocated wouldn't work out practically. The Plan Industry System is the practical working out in practice of socialistic theory. This, briefly, was the cartelization of all industries. Before the war most German industries had cartels with various functions. Some fixed prices; some regulated output, purchase of raw materials and even distribution. The socialists made the cartels compulsory but with equal representation of employers and pulsory but with equal representation of the pulsory but with equal representation of the boards. The results were satisfactory. Emworkers on the boards. These ployers and workers found a community of interest. cartels were controlled by a supreme cartel, the Economic Council at Berlin, composed of representatives of the various cartels. The Government can do nothing concerning trade, finance or industry without first consulting this council. This means that in practice the council controls the Government. The council allocates raw materials, transfers

orders from a firm which has too many to a firm which has too few and exercises a general supervision over industry over all Germany.

"The Plan Industry System places all initiative of business legislation and all execution of business law in the hands of business men and their employees. Thus in a few years it is apparent that unless there come changes the Plan Industry System will govern Germany through the Economic The Stinnes plan is to get control of the Economic Council through the Roof Trust. This is possible, for under the present plan the trust scheme is not carried out completely, for the ownership of a factory or company still remains in the hands of its owners. The Stinnes plan of operation as revealed by an analysis of his various activities is When the Government organizes a new cartel or syndicate. Stinnes buys up all the independent members and forms them ito a trust. Thus he and his associates control this particular cartel, carrying with it a seat on the Economic Council.

"HE ALREADY HAS A MAJORITY ON THE ECONOMIC COUNCIL AT BERLIN. His most frequent remark is: "The changed world requires new methods in business."

WHERE WILL THEY LAND?

A SOUTHERN banker writes us:
"The following appeared in the Wall Street Journal on October 21st, 1921.

"'GOVERNOR HARDING' IN NEW YORK.

"'W. P. G. Harding, governor of the Federal Reserve Board, is in New York. Mr. Harding is paying one of his periodical visits to this city. He visited the New York Federal Reserve Bank and conferred with Dwight W. Morrow, a member of the firm of J. P. Morgan & Co. Governor Harding said his visit with Mr. Morrow was purely a personal call.'"

Referring to the foregoing our banker friend adds: "I do not know if you saw it or not, but for your information I herewith enclose clipping, which speaks for itself. This may prove in time his future berth."

If President Harding would only get rid of Governor Harding and Vice Governor Platt from the Federal Reserve Board we would not care whether they went with J. P. Morgan & Co., Kuhn, Loeb & Co., or the Rothschilds. Powerful as those institutions are, they are private banks and they do not control the tremendous power used by the Federal Reserve Board for breaking down the business of the world.

LIBERTY FOR EVERY AMERICAN MUST BE AMERICA'S DEMAND.

Welch, W. Va., Nov. 1, 1921.

Editor Manufacturers Record:

I hand you check for \$3. with the request that you continue my subscription. I would not think of missing a copy of the Manufacturers Record if it could be avoided. I get a new inspiration each week for work and usefulness from the reading of this magazine.

Your firm and uncompromising stand for true American business principles and your fight against the domination of industry by unprincipled and unscrupulous union labor leaders has endeared you to all liberty-loving American citizens and placed them forever in your debt.

Influenced largely by the reading of the Manufacturers Record, it was my pleasure to volunteer as a private citizen from this, McDowell County, to go into Logan county during the recent trouble there and spend a week, working without rest or sleep, with the forces of law and order, to hold in check the army of insurrectionists. I heartily agree with you that what this country needs more than anything else is to be freed for all time from Unionism as it is officered and controlled to-day.

B. HAMPTON GRAY.

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SOME UNSEEN FORCES AT WORK WHICH WE NEED TO STUDY.

M. COURTENAY DE KALB, who is intimately acquainted with the Spanish Morocco situation from personal study of those countries, and who knows much of world conditions, in a personal letter from New Orleans to the editor of the Manufacturers Record, touching on some matters of present world-interest, said:

"The Spaniards are not driving the Moors back very fast as yet, but pretty soon we will see a grand sweep across country that will effectually 'pacify' the tribesmen. It is of great interest to see how unprepared for a real war the Spanish kingdom was. Though they had a fair sized army, sufficient to maintain internal peace and to back up their foreign office to the extent of being ready for the defense of their own frontiers, they were quite unready for an offensive or an external war. Actually Spain is recruiting an army of raw men who are being sent forward to Mellia for training. This serves a double purpose: the men are on the ground instead of being in distant training camps, and they are equipped with arms and ammunition, so that it will be impossible for the Moors ever to enter the city. Then, the training of the men within the sound and sight of conflict will put a soldierly spirit into them. At least twenty thousand men already have been assembled in camp at Melilla. The army in Morocco, at the time of the outbreak, was dispersed along a very extended front, which front was too thinly garrisoned. The Spanish forces actually were doing garrison duty more than anything else. When they were overwhelmed by the sudden attack of the tribesmen it turned out that only forty trained men remained in readiness in the city garrison to defend the citadel. Had the Moors known this they could easily have captured the stronghold.

"The Spanish army was quite unprepared for such a sortie. The people of Melilla, and the people of Spain, were dwelling in fancied security. The border warfare with the Moors did not seem to be a serious matter. It was inconceivable that overnight a great army of well equipped Moors could descend upon them. It makes one reflect upon our feeling of the improbability of a gust of war breaking upon us. We are aware of dangers, but the bulk of our people affect to laugh at them, and yet, with such examples as this before us we are talking about disarmament! The old pacifist croakers are asking, as they did before the war with Germany, 'Who and where is your enemy?' Meanwhile Germany is well known to be preparing for war, and the mutterings of impending storm from across the Pacific, reach us from many sources. The preparations for war in Germany are being conducted secretly as they were before. Only foolish explanations, which can deceive no man of understanding, have been offered for the tremendous explosion at Oppau. Are we to disarm, and entangle ourselves in new embarrassing treaties, when we know that avowed enemies are getting ready to fall upon us unawares?

"The craftiness of the Germans is shown by the subtle way in which they are now said to have provided the Moors with rifles and ammunition. All the leading French and Swiss papers recently published revelations made by the Count of Maugny, mayor of Draillant, Department of Haute Savoie, France, explaining how the Germans had smuggled to the Moors great quantities of regulation French arms and ammunition, captured by the Germans during the recent war. Abd-el-Krim, the Moorish chieftain who planned and led the assault of the Moors upon the Spaniards, was in the pay of Germany during the war, and had rendered great service to the German cause. Taking advantage of this friendship Germany craftly equipped him and his followers with French arms for a double purpose; First, of enabling him to strike what was hoped to be a terrible blow, for they expected that Melilla would be captured in the raid that was being arranged by Abd-el-Krim. To re-capture this stronghold, which has been in the hands of the Spaniards since the days of Queen Isabella, would have been a frightful shock to the nation, and would have seriously affected her prestige among all the Powers, with the result that Spain might have lost the hold she has upon Morocco under treaty agreement with the other nations. Secondly, supplying the Moors with French arms, as the Germans clearly saw, would lead to suspicions that the French themselves were aiding the tribesmen. Actually such suspicions were voiced quite generally, and it was producing a tension between Spain and her natural ally, France. In the face of such things WE are about to ratify a treaty with Germany which some patriots in the Senate insist, with apparent reason, is

full of special advantages to Germany, and WE are inviting a world conference on disarmament!

"The Spaniards are repenting their indifference to the maintaining of a proper military establishment. The Spanish critics of the pacifist party, which was aided and encouraged in Spain by Germans just as pacifism was so Teutonic here that it was justly said that if you scratched a pacifist you would find a German sympathizer, are now saying, 'Since it has thundered we remember to pray to the Saint!' Spain, however, is doing more than that. A great wave of, patriotism, active, self-protecting patriotism, is sweeping over the country, and one of its most interesting effects has been to almost completely submerge the social conflicts that had been disorganizing industry for so long a time. Workman and aristocrat alike are now enthusiastic for this war in Morocco. Every city and town is sending volunteers, and those who have to stay at home are buying acroplanes as gifts for the army, which are named after the cities making the donation. Also, the people are raising large sums by popular subscription to aid the Government in financing the war. Meanwhile, the Moors are found to have kept glowing their ambitions for once again reconquering the country that their ancestors ruled for so many centuries, and the Moorish battle cry is 'Back to Granada'.' Such things as these give cause for serious thought.

"'Where is our enemy?" It is not always polite to say where we think he may be, but it is good policy to be so ready for him that he will not come."

SALARIES OF FEDERAL RESERVE OFFICIALS.

THE Governor of the Federal Reserve Board has submitted to the Senate a report, as requested, containing information as to the salaries paid employes, the expenditures for buildings, the amount of net earnings paid to the Government as a franchise tax, etc. The report was too bulky for insertion in the Congressional Record, but will be printed as a Senate document.

The reply of Governor Harding to the charge that exorbitant salaries were paid various employes of the New York bank appears to be that the gentlemen in question had been tempted by offers of high salaries from other institutions in the metropolis and could be held in service only by the lure of rich stipends.

Until the full report is available we shall not discuss this phase of the problem. We can hold it to their credit, perhaps, that Governor Harding and his associate members of the Federal Reserve Board have also, on account of their transcendent abilities, been tempted time and again by offers of huge salaries from private institutions, but have been so influenced by patriotism that they are content to slave along in superior positions while their subordinates skim the cream. In the legal profession, men have been willing to serve on the Supreme Court of the United States despite the slender revenue, and we have known of men was surrendered large incomes to be Senators. In New York, however, an almost supreme control over financial affairs cannot lure really great men away from the pursuit of the dollar. They must be bid for or they cannot be got.

That, too, is beside the point. Most public officers are not paid enough. We ought not to exact of justices of the Supreme Court the financial sacrifices they make. But this is the point. Even as the Federal Reserve Board and the New York Reserve Bank officials were howling to high heaven that extravagance must cease, that all men must economize and that decent citizens, including all labor, must aid in world rehabilitation by accepting gladly sacrafices in pay and income—even as they were so crying they were insisting that their own incomes, instead of being lowered, must be increased' They had formulated a "cure" which was about the bitterest concoction ever forced down American throats, but it is now revealed that they themselves would have none of it. Let the other fellow take it.

"Oh wad some power the giftie gie us, To see oursel's as others see us."

SECRETARY MELLON NOT A SUCCESS AS A FINANCIAL LETTER WRITER.

M R. GEORGE M. TRAYLOR, a prominent capitalist of Atlanta, wrote to Secretary of the Treasury Mellon to say that there should be a sufficient amount of money in circulation to "insure the comfortable transaction of all legitimate business and to prevent extortionate rates of interest." He proposed the issuance of additional legal tender notes and the fixing of the rediscount rate at 3 per cent.

Under date of August 22, Secretary Mellon replied, and the correspondence has been published in the Atlanta Constitution. He says:

"The volume of money in circulation is amply sufficient to meet the demands of business" and suggests that under the Federal Reserve system "a shortage of currency is almost impossible."

It is refreshing that the Secretary included the word "almost." The authors of the system were convinced that they had prevented forever an arbitrary shortage of ccurrency. They have lived to see the most arbitrary shortage ever created in this country, and in January last the Reserve Board was boasting that it had "called in" something like \$200,000,000 of currency in a few weeks. The per capita debt is many times the per capita circulation, and it would hardly appear that money has been very free when the Reserve System itself undertook to charge $87\frac{1}{2}\%$ for the use of it, as it did in at least one case.

Secretary Mellon follows the ridiculous arguments advanced by Governor Harding and intimates that we must avoid the terrible things which have happened in European countries which inflated their currency. Russia and Germany did not inflate. They bastardized money. They deliberately undertook to print the value out of it. There has been no suggestion of that sort of money in the United States. What has been asked for here is the employment of treasury gold for currency purposes, maintaining always the statutory reserve of 40, but what the Reserve Board has been doing is to hoard the gold until there is almost double the reserve required by law. At one time the excuse for drastic currency restriction was given as a depleted gold supply. When that became absurd the argument was changed and based on disciplinary grounds, as if it was a function of the Federal Reserve Board to regulate the morals of the American people.

We are frankly amazed by Secretary Mellon's statement that "commercial banks are not primarily borrowing institutions, they are lenders, and for them to borrow to lend at a profit is universally recognized as unsound practice." There is not a commercial bank in the world that makes profit in any other way than by borrowing to lend. Why else do they advertise for depositors, if not to borrow the use of the depositors' money and lend it out? Secretary Mellon's own banking institution in Pittsburgh, boasts of its deposits and every dollar of deposit is borrowed money. Surely he must have been drowsy when he wrote that statement. Moreover, it is a universal custom, as Mr. Mellon must know, for commercial banks to borrow from financial institutions to take care of the needs of their customers.

The Secretary is not particularly happy when he denies that representations were ever made that Liberty bonds would never be at less than par or when he says they "have been selling below par in the market largely because the war and conditions prevailing after the war resulted in a worldwide shortage of capital, which greatly increased the cost of money.* * With the gradual accumulation of capital and consequent lower money rates, the market prices of Liberty bonds and Victory notes should gradually appreciate in accordance with inexorable economic law." Mr. Mellon was writing on August 22. There has not been since then any large accumulation of capital, we are sure. But the basic

rediscount rate has been lowered. And lo and behold, what has happened? Why, in spite of all this "inexorable economic law" of which the Secretary speaks, the war bonds have literally been rushing back toward maturity, by leaps and bounds. Inexorable economic law was not holding them down. The Federal Reserve Board was doing it.

We rather suspect that Secretary Mellon's views on August 22 were not exactly what they are today. We doubt if he ever did have the grotesque views of finance that Governor Harding made operative as national policy. This week there has been a definite move in the direction urged by Mr. Traylor, through the lowering of rediscount rates. We judge that Secretary Mellon as a practical financier is not in entire accord with Secretary Mellon as an academic letter-writer.

A prominent banker of Atlanta in sending to the Manufacturers Record a clipping from the Atlanta Constitution containing the correspondence between Mr. Traylor and Secretary Mellon, adds:

"This is indeed very interesting as well as distressing to citizens who have seen daily the results of the drastic deflation policy of the Federal Reserve Board.

"It seems to me that Mr. Mellon proposes to do for the Republican party what Ex-Secretary Houston did for the Democratic party—bury them, 'nolens volens.'"

However much Mr. Mellon's policy, it it had been continued, would have contributed to the burial of his party, it is gratifying for the good of the country to know that the deflation policy of the Federal Reserve System has been reversed and that that reversal is already beginning to have its effect in a lower discount rate in this country and in England. An Associated Press dispatch from London of November 3rd, referring to the reduction in the discount rate of the Bank of England, said:

"Today's reduction was due chiefly to yesterday's reduction in the discount rate of the Federal Reserve Bank of New York, it was understood in financial quarters. * * * Thus, with the financial situation so improved in the United States that a reduction of the Federal Reserve Bank rate was made, the bank authorities felt able to give the commercial interests here much-needed relief by the reduction, which is expected in financial circles to be followed shortly by still further reduction."

As our drastic deflation and high interest inaugurated by the Federal Reserve Board brought on world deflation and almost world bankruptcy, so now the world follows our financial lead by a reduction of the bank rate of England just as soon as the Federal Reserve System reduced the bank rate in this country. It is not yet too late to save the world from bankruptcy by this new attitude on the part of the Federal Reserve System, but the banks themselves everywhere must take an active, aggressive part in cooperating with their customers in order to prevent any further pressure for the payment of obligations until business has revived and thus enabled borrowers to make money with which to pay obligations. Continued pressure by banks against their borrowers would be almost as disastrous as was the unpardonable offense committed by the Federal Reserve System and the blunder of Secretary Mellon in the letter to Mr. Traylor. Already, we think, Mr. Mellon has seen a new light, and the Federal Reserve System and the Treasury Department itself are proceeding on lines directly contrary to the statements of Mr. Mellon in his letter.

Record Sweet Potato Yield.

Athens, Ga., October 25—[Special.]—The State Bureau of Markets has reported a record yield of sweet potatoes, raised by Mr. Tom Garrett, of Charling, Ga. On eight acres, he got a production of 1,427 bushels of graded sweets, 178 bushels to the acre, worth at the present prices, about \$93.00 per acre. Thirty additional acres of the same, said to be just as fine, will mean \$3,500 of sweets raised on part of a small farm.

Shall America Underwrite the Economic and Political Consequences of the Peace?

FORECAST OF PROPOSALS THAT WILL PROBABLY COME UP IN CONFERENCE ON DISARMA-MENT—FORMULA FOR INDUCING UNITED STATES TO GIVE ITS MIGHTY SUPPORT TO TREASURIES OF EUROPE DECLARED TO BE MAIN GOAL OF THE CONFERENCE.

By P. H. WHALEY.

Washington, November 4.

There is evidence to show that the approaching Conference in Washington was decided on in principle last winter, previous to the inaugaration of President Harding and subsequent to his election. As early as March 1, confidential advices forecasting the Conference were sent from Paris to the United States. Discussions of the event had previously taken place in London also, and there had been mapped out there, at that time, an elaborate disarmament program involving the chemical industry.

Europe had been informed in the summer of 1920 that the success of the Wilson program for the American participation in the League of Nations was entirely impossible, and that Mr. Harding would be elected by decisive majorities. The situation of Europe was somewhat acute, to put it mildly. In the opinion of the greatest economists, financiers, and statesmen of London, Paris, Rome and Berlin there was a conviction that European insolvency could be avoided only by the active intervention of the United States. The processes of diplomacy are not characterized by extreme openness, nor is the game played entirely in the council of chambers of state. The stake was too vast to be decided by the political fortunes of Woodrow Wilson. So, it may be said truly, the statesmen of Europe set much store by a solemn pronouncement, issued over the signature of Secretaries Hughes and Hoover, and others, in which it was set forth with great earnestness that the election of Mr. Harding did not mean American non-participation in the League of Nations, but did mean her participation under somewhat different conditions than Mr. Wilson had visioned.

The imagination of the world is caught by great formulas. The press would not take a great deal of notice of a proposal to consider the encouragement of gold mining, but a proposition to reconsider the gold standard would call for columns of publicity. What is it that challenges at once the attention of every decent man? A promise of peace, the lure of the millennium. A storm of protest would have arisen from ocean to ocean, for instance, if President Harding had announced that he proposed to counsel with the other nations as to how best the United States might participate in the economic rehabilitation of Europe, and thus entangle herself inextricably in European affairs. But an almost unarimous shout of applause rises from every corner of the nation when it is announced that the Powers are to meet to arrange fo. limitation of armaments.

The phrase is but a catchword and a slogan. What the conference is really for, in its main goal, is to discover the formula under which the United States can be brought to put its mighty hand beneath the treasuries of Europe and hold their structure up. All else is incidental, and so the record will show ere the winter snows have melted again before spring suns.

The estimated indebtedness of the civilized Governments of the world, reckoned in gold prewar parities, is approximately \$400,000,000,000. Virtually all of this is payable in gold. It is equivalent to eight times the total annual production of the mines, forest, fields and factories of the United States. The interest alone represents a staggering impost. It is an interest charge that cannot be met unless trade

prospers and unless governmental expenditures in peace times are narrowed to the limit. There are, however, great international financiers who have staked everything on non-repudiation of debts. They stand to lose nothing, of course, if the United States should cancel the European dedue her. They may face otherwise a total loss in great speculative ventures.

A small man with a big brother need not carrry a gun. The only way in which Europe is willing to disarm is if the United States assumes the role of big brother and policeman. If she will guarantee the territorial scratches on the map at Versailles, then partial disarmament can be effected. And in return for such a warranty—"Ah. well, with no great armies to support, we might be able to meet our debts." But it is well known that the people and the Senate will never sanction the giving of such a guarantee. That is what has already been declined. "Ah, then aid us with your money."

The exchanges are shot to pieces. None knows how many billions of marks have been sold for good American dollars. A current price at one time was $3\frac{1}{2}$ cents the mark. Then the German Government subsidized the industries and poured avalanches of marks into circulation. They fell in value to half a cent. Six-sevenths of the purchases of marks at $3\frac{1}{2}$ cents thus became pure German profit. By printing money Germany actually amassed hundreds of millions of reamoney. Then she has said to the Allies. "See, our money is worth nothing. But our industries are here, our labor and our skill. Get for us a new medium of exchange." That is one thing the Washington Conference is expected, directly or indirectly, to do.

But while Germany was thus in wanton financial harlotry, the other part of the world, England and France, driven to it by the United States, were curtailing credit and circulation in an almost equally wanton way. Markets went to pieces. The labor that was depended on to produce and pay interest on the world debt could not find any work at all. There was added to other burdens that of unemployment. Gustav Cassel, who has been described by Lloyd George as probably the greatest of living economists, declares that currency deflation has been carried to excess and is the main cause ot unemployment. He thinks that gold has lost its pre-war constancy of value and is no longer a suitable standard. He says that "the situation might be relieved for the time being if America were willing to invest more money abroad, but she does not now see it in that light and she may be influenced to a minor degree by the fact that the more interest she draws from abroad the more would the payers be infpoverished in the coming years unless they had increased their resources by the use of the money from America. It might set them upon their feet, but it is not at all certain that it would have that happy result."

Professor Cassel is convinced that it was an economic crime to fix the payment of the war debts in gold for the reason that the value of that metal may be arbitrarily increased." It has been increased by the exactions of the Federal Reserve Board, which has so multiplied the value of gold and diminished the value of all other commodities as to create at least temporary world insolvency.

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eau oes, ight ets, out If the Harding Administration, therefore, was determined to consider the signing of the Armistice as merely the termination of the first phase of the war, and to carry on American aid through the period of recuperation, it was apparent from the beginning that a revolutionary change must be made in financing. The world would find it hard enough to pay interest on the debt at 3% and impossible at 7%. Experts began to note, therefore, some months ago, the change in American policy. There was danger that the whole gold standard would be repudiated unless a freer use of her enormous gold reserve was made by the United States. A period of secondary inflation was obviously requisite if an international economic conference was to get anywhere.

If, then, the reversal of Federal Reserve policy was the first important move in connection with the projected conference, another, equally important, was that control of the foreign debt and full authority to settle it be vested advance in the Administration, without the necessity of reference of the settlement to Congress. This authority was saked for by the President many weeks ago, to be employed by Secretary Mellon, and the House has passed the so-called refunding bill, signing away its rights, in favor of a commission of settlement. The Senate, however, so far has been obdurate. This refunding bill is the key to the whole Washington Conference. Unless the Administration can get this authority, this unlimited authority, to compose the foreign debt its whole plan of action will be seriously impeded of not ruined.

In general, then, the all-European program visions, as a result of the conference, these remedies: Cancellation or modification of international war debts; revision of German reparations; removal of European trade barriers; formation of an international currency with the dollar as a world unit; use of Ter Meulen bonds to back credits extended to impoverished Governments on the condition that they extend them solely to financial reform. These things imply the liberal use of American gold in the rehabilitation of Europe, and in all the plans so far advanced for stabilization of the exchange American gold is also the basis.

Interwoven in these phases of the situation is the tariff. It has been declared that passage of the permanent tariff bill was deliberately delayed until the Conference had met. Generous access to American markets is put forward by the European governments generally as an essential factor in their economic rehabilitation. They assert that it is not good business to extend credit with one hand and with the other bar the incoming of European goods created by that credit. And yet, on that plea, America cannot lend a dollar to Europe without building up at the same time a competitio. that is more than likely to destroy her own establishments. "Help me to get strong that I may take from you your daily bread." As Professor Cassel has intimated, in view of the enormous credits already extended to Europe, the United States can hardly extend more without imperilling her own producing institutions.

In the face of such a situation, a formidable propaganda has been built up in the United States in opposition to American Valuation. American Valuation in fact equalizes cost of production abroad, and any other valuation simple magnifies the advantage possessed by countries employing pauper labor. The intensity of the fight waged against American Valuation illustrates how far propaganda can go in deceiving men to support unpatriotic proposals. No wonder they have begun to talk already of the Washington Conference as "The Battle of the Propagandists."

The early weeks of the Conference will undoubtedly find limitation of armaments as the dominant theme. It will by March, perhaps, before the true character of the negotiation is revealed. Armament, of course, is itself a form of practical economics, and it is the feature that is relied on to

swell sentimentalism in America into acceptance of absurd concessions. Here, however, the responsible officers of the Administration are likely to reveal themselves as extremely practical men. They will sign their names to no program that would render this nation defenseless.

The Gordian knot in world diplomacy today is the Anglo-Japanese Alliance. The British are too well informed about European Continental conditions to anticipate any prompt revival of trade there, even with American assistance. The tomorrow of the world is in the Pacific. There is the trade Armaggeddon to be fought. Admiral Jellicoe so reported two years ago, after his tour in the Far East. So have the trade experts of all nations reported. And the key to the East is China.

England is anxious to retain her naval overlordship of the world. Her finances forbid. She cannot compete in naval armament with the United States. But England and Japan together can. If the Anglo-Japanese Alliance is continued, therefore, it will become necessary, it is claimed, for the United States to maintain a fleet at least equal in strength to the combined British and Japanese fleets. That' is unquestionably what the Administration will seek to do unless an agreement to terminate the Anglo-Japanese pact is made. The proposal, in a nutshell, is that in return for England's giving up her alliance with Japan, the United States will curtail its naval building program and not challenge British supremacy on the high seas. That is the understanding which will probably be arrived at. Many will consider such an outcome a British triumph, but the Administration is likely to think that the termination of the Anglo-Japanese pact is more than worth the price. The various ramifications of the Japanese situation it would take volumes to rehearse. The "humiliation" of Shantung opened Western eyes. The continents of the world have begun to ask questions of the islanders.

It has been said that Woodrow Wilson tried to guide the nation into the League of Nations through seas of sentiment, but that Hughes will ease it in through the back door. Others, with strong arguments to support them, have argued that prosperity is not to be permitted in the United States unless this nation has agreed to finance Europe. "The international financiers must make good their claim that there can be no prosperity until Europe is financed so she can buy from us. If the Conference evolves a formula which it can be claimed will give to the cotton-grower a higher price for his cotton and to the wheat-grower a higher price for his wheat, then, even if that formula means participation in an association of nations, it will be accepted. Where sentiment failed, the irrefutable arguments of economics will be decisive."

It is impossibe in a comparatively brief article to touch on any but the outstanding features of the Conference. The relation that chemistry will bear to the general discussion would itself fill a library. Nor would it seem to be necessary to emphasize the imminent danger of sentimentality inviting concessions that would be ruinous to the country.. The President has himself declared that there is no intention to try to bring about disarmament. Practical men, who will see policemen guarding the very Conference itself, are not likely to agree that gentlemen's agreements or treaties can take the place of national defence. It is not in surrenders of that sort, the character of the American delegation would indicate, that the chief danger is to be looked for. Rather is that danger to be found in the negotiations, some of which will never reach the daylight, involving the dedication of American resources to consumption in the fires of European waste.

If the refunding bill is passed by Congress it will be a clear sign that the participationists, of whom Secretaries Hughes and Hoover are supposed to be the leaders, are going to have their way with the President and will have more than an even chance of putting through the entire economic 15.41 he ely an

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The Washington Conference, it will be discovered, is the old question all over again in a new form and this is it: Shall America underwrite the economic and political consequences of the Peace?

Silica Gel, a New Chemical Product with a Broad Range of Industrial Uses

[The research and engineering departments of the Davison Chemical Company, of Baltimore, began experimental work about three years ago on the application of Silica Gel to various industrial manufacturing processes. During this time many types of apparatus for using Silica Gel on a commanufacturing processes. During this time many types of apparatus for using Silica Gel on a commercial scale have been designed and tested out under operating conditions, and successful equipment for each of the more important problems has finally been developed. The article following was written by Dr. B. F. Lovelace, who in co-operation with Dr. Walter A Patrick and E. B. Miller, developed and brought into practical application the various industrial uses for Silica Gel. Dr. Lovelace briefly utlines what some of these applications are, and indicates the broad field for further development. -Editor Manufacturers Record.]

By Dr. B. F. LOVELACE, Baltimore, Md.

Silica gel is a hydrated form of pure silica, and is accordingly very inert chemically. It is not attacked by ordinary reagents, except of course fluorine compounds, and to a slight extent by concentrated alkali solution. It may be exposed without injury indefinitely to nitric, hydrochloric and sulphuric acids, at their boiling points, or to any mixture of these acids. The water content varies. It is employed in the activated condition with from 5 per cent. to 8 per cent, moisture. The water content may be reduced below 5 per cent, by heating without impairing its essential physical structure. It is not only stable toward chemical reagents, but may be heated to 600° or 700° under proper conditions without damage.

and diplomatic program which they sponsored a year ago.

They will lead the nation to the Woodrow Wilson goal, but

by another route. A powerful Senator, who is well posted

on subterranean government, was asked what he thought of

the outlook. "All good men and true want peace, but wisely

they keep their powder dry. Sentimentality for disarmament

Physically, silica gel appears like an ordinary solid, having a hardness of about 4.5 and an apparent density of about 0.7. It is, however, not an ordinary solid material, but possesses a highly porous structure. The pores are ultramicroscopic in size, but are so extraordinarily numerous that the voids in activated material constitute about 40 per cent to 45 per cent, of the total volume. That is, the total capacity of the pores in a cubic centimeter of gel is over 0.4 of a cubic centimeter. This highly porous structure is obtained by a special process of manufacture which results in a product of uniform character. It may be manufactured in any desired quantity.

This porous structure gives the silica gel the power of selective adsorption to a high degree. For example, if air or other permanent gas containing a large or small amount of the vapor of any volatile liquid, such as sulphur dioxide, water, alcohol, benzol, etc., comes in contact with gel at the ordinary temperature, the vapor is very quickly taken up or adsorbed by the gel, while the permanent gas is not. Moreover, the pores are of such size that the adsorbed material may be readily driven out and, if desired, recovered in pure condition, or at any concentration preferred. Having been freed of its adsorbed material the gel is in condition to be used over again. Its highly porous character, and its chemical and physical stability, which make the material practically indestructible, are the properties which give to silica gel a wide field of usefulness in the industries. These uses may be grouped under three heads:

- 1. Adsorption from the gas phase.
- 2. Adsorption from the liquid phase.
- 3. As a catalyst.
- 4. As a carrier for catalytic materials.

While these various uses depend upon the same physical and chemical properties of silica gel, they include wide applications in a great variety of large and important industries which would appear otherwise as wholly unrelated to each other.

For example, we have under adsorption from the gas phase the drying of air for various purposes, including dry blast for iron furnaces; the manufacture of ice; recovery of gasoline from natural gas and still gases; the recovery of light oil from coke oven gas; solvent recovery from dilute air mixtures; the recovery of oxides of nitrogen in the exit gases from the Gay-Lussac tower, etc., concentration of dilute sulphur dioxide-air mixtures for use in the manufacture of sulphuric acid and liquid sulphur dioxide; and

Under adsorption from the liquid phase are included the refining of various petroleum products, such as gasoline, kerosene, lubricating oils and wax and the refining of certain vegetable and animal oils.

Silica gel is an excellent catalyst for certain types of organic reactions, particularly those involving the elimination of water, as for example in esterfication. Of greater imporance than its use as a catalyst itself is its employment as a carrier for a great variety of other catalytic materials. With the exception of the alkali and alkaline earth metals, almost any metal or metal oxide, which together constitute the most important group of solid catalytic agents, may by proper means be incorporated in silica gel. Many of the products obtained have been found to show a high degree of catalytic activity.

The demonstrated advantages of dry blast for pig iron furnaces make the drying of air one of the largest and most important applications of silica gel. The process for continuous and economical air drying on a large or small scale has been developed to a high degree of mechanical and thermal efficiency. A small scale apparatus for handling 1500 and 1800 cubic feet of air per hour has been operated for several months, including a week's public demonstration at the recent Chemical Exposition in New York. This apparatus is shown in the illustration. The same equipment is adapted to all the other purposes referred to under adsorption from the gas phase with a slight modification made necessary in order to recover, instead of waste, the adsorbed material.

Perhaps the most important application of silica gel for adsorption from the liquid phase is in the refining of gasoline, kerosene and other petroleum products. Recently there has been made a commercial installation of refining gasoline and kerosene, the capacity being from 500 to 1000 barrels per day, depending upon the quality of the crude products. This plant is now being used in refining kerosene from high sulphur Mexican crude, which cannot be done economically by the older method of refining. A number of practical oil men, after seeing personally what silica gel will accomplish in refining various petroleum products, including lubricating oils and wax, have expressed the opinion that the introduction of the new process will mark an epoch in petroleum technology.

The structure of silica gel, together with its chemical and physical stability and the fact that many solid catalytic materials, including both oxides and metals, may be incorporated with it in a variety of ways make it very useful as a carrier for catalysts. For example, platinum properly incorporated with silica gel is several times more active than an equal quantity of platinum deposited on asbestos or magnesium sulphate. Other catalysts have likewise a high degree of activity when incorporated with the new carrier. Such impregnated silica gels are sure to find extensive employment in various catalytic processes.

One of the most important of these catalytic uses is in the manufacture of contact sulphuric acid. Aside from the greater activity of platinum in platinized gel, referred to above, silica gel mass has other advantages over the masses now used. Its physical properties recommend it strongly to the practical operator. Being a hard granular material it requires no particular precautions in handling and is well adapted to form a contact bed. Less rigorous control of the water content of the gases entering the converter is required when a silica gel mass is used and the whole operation of the contact process becomes a less delicate one.

The research and engineering departments of the Davison Chemical Company began experimental work on the application of silica gel to various industrial manufacturing processes about three years ago. During this interval many types of apparatus for using silica gel on a commercial scale have been designed, and tested out under operating conditions. A successful equipment for each of the more important problems has finally been developed, and it is, therefore, now possible to negotiate contracts with prospective users of the silica gel processes for complete plants appropriate to each particular case.

The Davison Chemical Company, of Baltimore, together with the original owners of the silica gel patents, have jointly formed the Silica Gel Corporation, which will have the exclusive right to manufacture silica gel, and grant license privileges to customers.

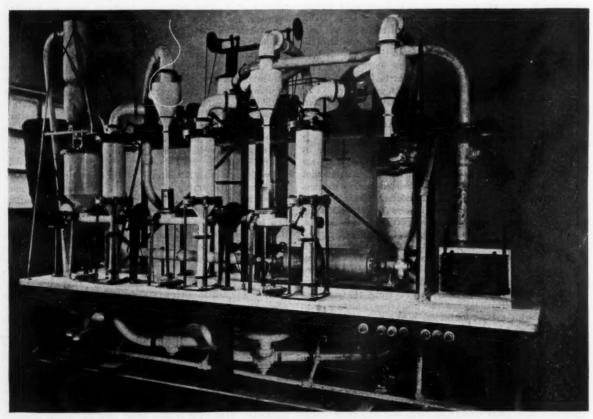
The new corporation is very closely connected with the Davison Chemical Company, as most of the officials occupy identical positions in the two corporations.

\$400,000 Office Building to Be Erected in Augusta.

Augusta, Ga., October 29.—[Special.]—Plans have been completed and bids will be requested about December 15 for the erection of a 10-story building, 40 by 120 feet, to cost approximately \$400,000. G. Lloyd Preacher & Co., of Atlanta and Augusta, prepared the plans for the structure which is to be of steel, stone, brick and terra cotta, with a slag roof, and equipped with electric elevators for freight and passengers.

Building in Winchester Totals \$1,500,000

Winchester, Va., October 22—[Special.]—During the past year approximately \$1,500,000 has been expended in the construction of dwellings that are now complete or in course of erection. About 175 houses have been completed and at present 100 others are being built. There has been little industrial depression here. The failure of the apple crop has been the one deterring force to activities in this section.



SMALL SCALE AIR DRYING APPARATUS-HANDLES 1500 TO 1800 CUBIC FEET OF AIR PER HOUR.

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Finance, Its Relation to Prosperity, Poverty and Crime--Some Interesting Historical Facts.

By JUDGE CHAS. E. CHIDSEY, Pascagoula, Miss.

The Manufacturers Record has minimized rather than overstated the dangers that threaten from our policy of "deflation" and "credit contraction."

The lesson that history teaches is that the greatest calamity that can befall a people is the contraction of its medium of exchange below the need of its numbers and its commercial transactions, bringing as it does declining credit and the destruction of commerce and industry, while on the other hand the assurance of ample means of exchange brings a rise of prices, which in turn stimulate individual effort by the prospect of greater reward for labor, which becoming universal acts as a powerful tonic upon the general welfare of society and of the nation.

Ascending prices mark an era of prosperity, while descending prices mark an era of depression. What advantage is "deflation" if while lowering prices you at the same time take from the consumer his employment and the power of buying at the diminished price? What does it matter that one should pay \$100 a suit when your income justifies the price? What advantage is it to have shoes selling at \$1 per pair when you cannot earn the \$1?

The greatest revolutions of history have been promoted by the increase or the decrease of the supply of the precious metals and Alison in his essay, "The Fall of Rome" (Alison's Essays, Vol. III. page 440), shows that the fall of Rome was due to the failure of the mines of Greece and Spain, causing, as they did a paralysis of industry and bringing on an overwhelming increase in taxes.

It was fortunate for Rome that during the second Punic war and just after the battle of Cannae, when she was crushed and almost helpless at the feet of Carthage, some one invented an "expansive currency," an invention of which happily Carthage was ignorant. "The censors found that the treasury was unable to supply the public service and upon this trust monies belonging to widows and minors or to widows and unmarried women, were deposited in the treasury; and whatever sums the trustees had to draw were paid by the quarter in bills upon the banking commissioner, or triumviris mensarii. In the same way the government contracts were made in paper, the contractors promising not to demand payment until after the war." (Arnold's History of Rome, Vol. II. page 220.)

It was the "expansive currency" that enabled Great Britain from 1797 to 1815 to keep Nelson at sea and Wellington in the Peninsula that eventually led to the downfall of Napoleon. It was the contraction of the currency by legislation in 1819 and 1844 that brought on the fearful panies of 1825, 1837 and 1844.

It was in the Spring of 1819 that Sir Robert Peel, then Prime Minister of England,-by the advice, it is said, of Ricardo,-carried through Parliament his measure for putting the finances of the country on the gold standard. By that measure the fixed price of gold was 3 pounds, 17 shillings, 10.5 d. per ounce. The bank was to pay all of its issues in gold and it was prohibited from issuing paper for more than 14.000,000 pounds sterling on securities. In short, the restrictive theory was put into practice, and the Act was to become effective May 1, 1823. Up to that period England had passed through an era of unprecedented prosperity, but with the restrictive act in force the result was most disastrous. Prices fell rapidly-more than a third; every debtor found that his debt had been increased one-third. Then came the great panic of 1826 that swept Great Britain like a huricane, and the fortunate finding of an old chest in the

Bank of England containing two million pounds of Bank notes (\$10,000,000) that had not been put in circulation, which stopped the panic,

The Scotch bankers invented the system of "cash credits" in 1729, under which Scotland grew from a wild and barbarous country to one of the richest and foremost industrial and commercial country of Europe. The union with England took place in 1745 and the Scotch bankers adhered to their "expansive currency" during the great panics of 1825 and 1837. A report made by a committee of the House of Commons in 1840 states that whereas in Scotland the whole loss sustained by the public from bank failures for a century and a half was 32,000 pounds, the loss to the public during the previous year in London alone was estimated at ten times that amount.

In 1819 the price of wheat was 72s.3d. per quarter (250 pounds), in 1822 it was 43s.3d. per quarter, and in 1850 it was 40s.3d. per quarter. Now here appears a curious and interesting fact: from 1812 to 1832 crime increased in Great Britain just 100 per cent while the population increased only 50 per cent, and it is worthy of remark that in Great Britain the United States and France the greatest increase of crime was among the educated classes.

From 1822 to 1849, in which period fell the great panic of 1847, the increase of crime was nearly 300 per cent and during the same period the population of Great Britain increased only 30 per cent, or crime increased nearly ten times as fast as the population. During the great monetary panic of 1825-6 the number of criminals increased from 31,828 to 38,071 in 1828, and the years of 1829 and 1830 being years of comparative plenty the number of criminals decreased to 33,273 and 36,000 in these years respectively. The years of 1831 and 1832 being again years of distress we see the number of commitments for serious crimes increase to 49,529 in 1834. The boom times brought on by the joint stock mania and a good harvest in 1835 lowered it to 44,803 in 1838, while bad harvest and bad times brought it up again in 1839 and 1840 to 54,244 and 54,892 in these years. Then followed the tine harvest and extensive railroad developments of 1844 and 1845 when the number again fell to 49,565 and 44,536 respectively; and then came the panic of 1847, when the figures rushed up to 73,780 in 1848 and 74,162 in 1849. These figures conclusively show that periods of financial depression are always accompanied by an increase of crime, while in periods of prosperity there is a decrease of crime.

Cotton is in the United States the financial barometer, showing the conditions of the financial atmosphere, as wheat is in England. Now, 1893, 1894, and 1914 were lean years for the United States, when the price of cotton averaged 7.5, 5.9 and 7.3 cents per pound for each of these years. In 1915 it was 11.2, in 1917, 27.1 and in 1919, 35.4 cents per pound, when the cotton planters and farmers went "joy riding," laborers were silk shirts and rode in expensive automobiles; hence "deflation" was necessary to save the nation from prosperity and under the theory of restrictive credit cotton fell from 37.7 cents per pound on June 1, 1920, to 11.5 on Jan. 1, 1921, a fall in price of more than 300 per cent.

There is no data available by which one can compare the falling price of cotton with the increase of crime. It is, however, generally admitted that in the period of "deflation"—1920-1921—this nation has witnessed the greatest crime wave in its history and which shows no sign of abating.

The deflation policy of this country has, as Mr. Frewen

says, nearly bankrupted the world, and the world is in practically the same financial position it was in 1492 and 1849. In 1492 the depletion of the world's supply of gold and silver brought the world face to face with universal bankruptcy when the discovery of America and the mines of Mexico and Peru brought on a long period of expansive currency, or inflation, if you so prefer, revivifying civilization in the period known as the Renaissance; and then in 1849 the deflation policy of Great Britain brought the world again to such a crisis, when the fortunate discovery of gold in California and shortly afterwards in Australia gave the world its needed supply of gold. The effect of this discovery on commerce may be seen when it is stated the exports of Great Britain to the United States in 1842 were 3,528,807 pounds, and in 1849 11,971,028, an increase of more than 300 per cent. When the United States joined the nations of the world in 1898 and demonetized silver the finding of the gold fields of the Klondike saved the day.

Sir Robert Peel himself states that his gold standard and his Bank Act of 1844 did not have a financial but a moral purpose; they were "designed to check inordinate speculation and gambling." Now if your memory does not fail you, you will recall that W. P. G. Harding made the statement that his "deflation" was to stop extravagant living and wild speculation; that is, to check the wearing of silk shirts and automobile riding. Well, we have got rid of the silk shirts and extravagance, and some other things besides, and some 6 million men are out of work. A writer in Blackwood's Magazine for 1851 says: "Cheap bread is only another name for cheap wages." There you have an epigram that gives the science of political economy in one sentence, and I would like to see you beat it.

This year nature has been most bountiful to the canneries, the largest run of shrimp on record, but no sales for the products and fishing fleets tied up. I have a brother-Julaw, who put up \$45,000 worth of canned shrimp and today he cannot find a market for them, and one-half the world starving! Now to the point: We have drained Europe of her gold and she is starving for gold. What must happen? Europe must have gold, and unless some fortunate explorer opens up new gold fields she must re-monetize silver or plunge down into the dark abyss of bankruptcy, dragging the world with her. Then comes anarchy and revolution.

These are only hints of some things, new, that I wish to call your attention to.

Strong Association Formed for Promotion of Organic Chemical Industry of America.

For the purpose of developing and perpetuating a self-sustained organic chemical industry in this country, a number of representative manufacturers recently met in Washington and organized the Synthetic Organic Chemical Manufacturers' Association of the United States. Dr. Charles H. Herty, a former president of the American Chemical Society, and known throughout the country for his constructive activities in the interest of the American chemical industry, has tendered his resignation as editor of the Journal of Industrial and Engineering Chemistry, and has accepted the presidency of the new association. In referring to the aims of the Association Dr. Herty states:

"At last there has been brought together one effective organization of men who, for the past five years, have been developing in this Country all lines of manufacturers of synthetic organic chemicals. The fine spirit shown throughout the meetings gave assurance of a strong organization which will aid in developing to its maximum efficiency this industry born of the war period and now recognized by all as being of such fundamental importance to the Nation.

"Much progress has been made, but there is a long road ahead before we can hope to give to our country an industry

which can worthily meet its every need. Toward that goal we are facing. The association as organized is thoroughly democratic in character. It follows national lines in this respect for in the councils of the Association the small manufacturer has equal voice with the larger, and we all recognize that the success of the industry is closely bound up in the welfare of the small manufacturer. There have been some points of friction in the past between producer and consumer, but I believe that the hearty spirit of cooperation is developed which in the end will assure the future of this industry. Personally it seems strange to me to be leaving the ranks of the chemist for those of the manufacturers. For six years I have editorially striven to arouse first the chemist and then our people in general to the importance of developing this industry. The idea is now so clear to all that I feel my best efforts can be given to work with the manufacturers on their many problems in the hope of aiding them in the firm establishment of that industry which is so vitally important to this Nation."

In its Constitution the purposes of the Association are set forth as follows:

"To advance the science of orgnic chemistry by encouraging the manufacture in the United States of all kinds of organic chemicals; to co-operate with the various agencies of the Government of the United States in its efforts to develop, improve and render servicable a complete organic chemical industry; to promote cordial relations between American concerns and individuals engaged in the production and use of organic chemicals; to afford means for the dissemination of scientific knowledge; to promote the highest scientific and business standards in relation to the industry; and generally to take such collective action as may be properfor the establishment and perpetuation of the organic chemical independence of the United States of America."

The Association is subdivided into four sections—Dyestuff, Pharmaceuticals, Intermediates and Fine Organic Chemicals, each section having a vice-president, a secretary and an executive committee.

The administration of the Association is in the hands of a Board of Governors, consisting of the President, the four Vice-Presidents, and ten members nominated by the sections. The elected are:

President, Dr. Chas, H. Herty; Vice-Presidents: C. N. Turner of the Dyestuff Section, Herman Seydell of the Pharmaceutical Section, S. W. Wilder of the Intermediate Section, B. T. Bush of the Fine Organic Chemical Section, R. S. Burdick, R. C. Jeffcott, August Merz, M. R. Poucher, P. Schleussner and F. P. Summers were elected members of the Board of Governors, the remaining four members, one from each section, will be elected later.

\$400,000 Bonds Voted for City Railway and Docks.

Citizens of Miami, Florida, on November 1 voted to issue \$400,000 of city bonds, of which \$100,000 will be used to purchase the tracks of the Miami Traction Co. and sufficient equipment to permit resumption of operations. Then the line is to be rented to the Miami Beach Electric Company. Carl G. Fisher, president, at \$6,000 a year for operation. It is expected that a ten minute service will be established during the latter part of Docember and that the fare will be ten cents.

The remainder of the bonds voted,—\$300,000.—will be eniployed to improve and extend the city docks.

The entire bond issue was approved by a vote of more than 8 to 1.

A \$200,000 theatre and office building will be erected at Lexington, Ky., by M. Swetow. The building will be a fire-proof structure, 80' by 254' in size, with composite roofing and concrete and tile flooring. Joseph and Joseph of Louisville are the architects. Bids will be opened December 1.

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Illuminating Court Decision on Limitations of Business Cooperation Expected Shortly.

Washington, October 21-[Special.]- A decision by the Supreme Court of the United States is expected in the near future which may serve to clarify in many respects the Sherman Anti-Trust Act. Strangely enough, although thirty years have elapsed since the passage of the Sherman act, there has not been a final decision of the highest judicial tribunal demarking the limits of this law's application and serving as a guide to American business. And throughout this entire period agencies of government have been working with more or less zeal to bend the Sherman anti-trust law to meet new and wholly divergent conditions of business. This has resulted in a multiplicity of suits against individuals and groups that are charged with violation of the Sherman anti-trust act, although to this day no one in America knows just what the Sherman anti-trust act means in its general application to industry. Happily the day of "trusts", except the Federal Reserve Bank, for the purpose of restraining trade, has passed forever in America, and there is doubtless need of the continued existence of the Sherman act as a deterrent against recurring tendencies, toward the old indefensible practices which brought it into being. But none of the methods of oldtime Trusts equalled the campaign of the Federal Reserve system to wreck state banks. Within the past thirty years industry in America has progressed far beyond the most vivid prophecies of a generation ago, and the trend of business has been logically, naturally and properly in the direction of legitimate cooperation.

The Supreme Court of the United States has under consideration at this time a test suit which may clear up the whole situation in relation to industrial cooperation and chart the channels through which business may function with entire safety and understanding of its opportunities and limitations. On the 12th day of October L. C. Boyle, appearing for the American Hardwood Manufacturers Association, presented an argument before the Supreme Court in a suit brought by the government under the Sherman antitrust act, and which charged this association specifically with restraint of trade, notwithstanding its cooperation activities were conducted openly and with full publicity and were manifestly designed to promote business instead of restraining it.

The outstanding items involved in the hardwood case were three reports, to wit: records of past sales, records of stock inventories, and records of current production, and the specific question is: Has an industry that has no central market of its own, and therefore no public channels through which information can come, the right to set up machinery within itself for the purpose of gathering the same kind of information that the stock exchanges and cattle markets distribute free to farmers and cattle-raisers. In a word, is the Sherman Law a dead hand on industry?

The decision of the Supreme Court is expected within the next few weeks. If favorable to the right of associations to disseminate information the effect will be to facilitate the statistical reports which Secretary Hoover has been endeavoring to prepare through the Department of Commerce. His work in this particular has been retarded by the opinion of the Department of Justice that the Government itself cannot properly be doing the very thing it is enjoining a private association from doing. Another effect would be the reopening of the entire anti-trust situation in the United States.

Furniture Factories at Huntington on Full Time.

Huntington, W. Va., October 31—[Special.]—The statement is made by G. J. Nicholson, head of one of the largest furniture factories operating in the Ohio valley that all

furniture factories in Huntington are being operated on a full time basis and that orders are sufficient to enable such factories to continue to operate at the rate of 100 per cent during the remainder of the year. The Nicholson-Kendle Company of which Mr. Nicholson is president has enough orders to make it certain that the factory will be able to operate without interruption until the first of the year when orders resulting from the January shows will begin coming in

What is true as to the Nicholson-Kendle Company is also true as to other furniture factories in Huntington. It is stated that January shows usually bring enough orders to Huntington furniture manufacturers to insure full production until the following fall. Although manufacturers of this city are perhaps more fortunately situated than others it is the belief here that the furniture business in general is undergoing inprovement.

A South Carolina Dairy Industry Development on a Broad Scale,

Florence, S. C., October 31—[Special.]—An interesting development in the dairying industry of the state is the new plant being built here of the Colonial Creamery Co., planned for four stories brick, and representing an initial investment of \$25,000, with possible expansion to \$150,000. It will have a churning capacity of 5,000 pounds of butter daily, and feeding 6,000 head of poultry as a side-line.

Major M. W. Cartwright, of long experience in dairying in Texas and Indiana and in government research work, has leased the plant which it is hoped to have ready for a start in December. It is designed to make it a model in scope and modern equipment so that results attained will be an encouragement to others in the field.

Major Cartwright claims that South Carolina is ideal in soil, rainfall and climate for developing a great dairying industry; that instead of buying last year \$3,000,000 worth of butter and eggs outside, the state should be shipping much more than that in surplus. His own plans include shipping his milk-fed poultry to eastern markets and Florida resorts.

To assure proper support to the dairy, the banks of Florence have agreed to loan up to ten per cent of their capital stock and surplus to farmers for the purpose of buying 1000 grade and registered milch cows, and a few choice males, in order to build up a permanent blooded stock for this section. Part of the loans will be used for better barns and more silos, both being important in securing a maximum milk flow the year around.

The Extension Depts. of the State and Clemson College have promised to send representatives here and lend all support in making the big program a success, as it is their desire to stimulate greater interest in dairying, blooded stock, etc., to the fullest extent, as filling a vital need in furtherance of their plans for fighting the boll weevil by general diversification in South Carolina.

Atlanta Building Permits for 10 Months 1921 Equal Figure for Whole Year 1920.

Atlanta, Ga., October 28.—ISpecial.I—With three days to spare, Atlanta building permits have in ten months equaled the total for the whole period of 1920, the number being 995. While the money valuation is now \$3,500,000 less than last year, due to the decrease in materials and labor, there are yet two months in which this figure may be surpassed. July was the biggest month in expenditures, lacking only a hundred thousand dollars of the million mark. 1100 homes are represented in this ten months record, twice as many as in 1920, and a very gratifying fact in city development.

THE IRON AND STEEL SITUATION

Production of Pig Iron Increasing.

Pittsburgh, Pa., Nov. 5—[Special.]—Production of pig iron was at 22 per cent higher rate in October than in September, the steel works furnaces and the merchant furnaces increasing their output in the same ratio. Such an increase, from one month to the next, is very large, and would be encouraging in all respects were it not for the danger that the increase may have been a trifle too great for the state of trade now existing. Demand for steel products increased steadily for three months to the middle of October, but since then the trend has been slightly downward.

The common view as to iron and steel is that from a long range standpoint demand is increasing, the idea being that backsets such as now observed are merely temporarly. This view rests upon a substantial foundation, for business in general has been improving, and as buyers of iron and steel have not stocked up they can hardly avoid continuing to buy, to take care of current requirements.

Production of pig iron in October was at the rate of about 14,600,000 gross tons a year, and if ingot production increased in the same ratio as pig iron the ingot production in October was at close to 40 per cent of capacity, against 21 per cent in July.

Some rail producers have announced that application of the reduced price of \$40 a ton on rails made a fortnight ago applies on rails rolled since August 25, indicating that last August the mills involved offered to give railroads an adjustment on any rails they might specify for meanwhile.

Steel prices are not definitely declining from week to week, but in general they show a sagging tendency. This is in line with the fact that everywhere reductions in freight rates are expected, and the further fact that financial reports of steel company operations in the September quarter indicate that profits can be made in steel at present prices.

The advance in sheet prices attempted by several independents three weeks ago promptly failed, while in the past week the former prices have been shaded, and in a few instances to the prices prevailing before the September advance, cut price sales of black sheets being made at \$2.75 to \$2.90, while the "regular" market is 3c.

The American Steel & Wire Co. (Steel Corporation) has been soliciting contracts with regular customers at present prices, \$2.60 for plain wire at \$2.90 for nails, on the basis that an advance is soon to be made. Last Tuesday the Youngstown Sheet & Tube Co. advanced to \$2.90, not having participated at the time in the September 12 advance.

Following continued shading in tin plate by some of the independent mills, the American Sheet & Tin Plate Company (Steel Corporation) last Thursday afternoon suddenly announced a reduction in its price from \$5.25 to \$4.75. Delay in making this reduction represented an exception to the policy the trade has understood the Steel Corporations to be pursuing since last April or May, of meeting independent competition whenever important.

The pig iron market continues very dull, with prices unchanged at \$20 for Bessemer, \$19 for basic and \$21 for foundry, f. o. b. valley furnaces freight to Pittsburgh being \$1.96.

Connellsville coke is quotable a shade lower, with a weaker undertone, the market now stands at \$3.25 to \$3.35 for spot furnace, \$3.35 to \$5.40 for contract furnace and \$4.25 to \$4.75 for spot foundry.

Freight Rate Adjustment a Factor in Market.

Birmingham, Ala., November 7—[Special.]—What little slackening up in the pig iron trade there may have been for the past 10 days to two weeks is due to the fact that consumers

are now waiting for the announcements on the readjustments of railroad freight rates. Alabama producers of pig iron have sold a considerable amount of their product ahead, for delivery during the last two months of this year and some through the first quarter of 1922. There has been no weakening in price of pig iron during the past week and longer, in fact there is a stronger feeling in that direction, \$19 per ton. No. 2 foundry being asked for the product, on a 1.75 to 2.25 per cent silicon analysis. The production of pig iron in Alabama showed a material improvement in October; blowing in of two blast furnaces on charcoal iron and three on foundry iron had the effect of increasing the tonnage considerably. Alabama pig iron is still moving into other territories. Cincinnati, St. Louis and Chicago sales agencies have been offering Alabama iron and while there has been no new business lately, the few orders accepted the first of the past month are still to be delivered on.

Cast iron pipe and sanitary pipe plants are the big melters of pig iron here at present.

The steel mills of this district are still operating on more than a 50 per cent capacity. Announcements are being made of the acceptance of steel rail orders by the Steel Corporation for the Tennessee Coal, Iron & Railroad Company, subsidiary, and the aggregate so far is around 125,000 tons for the coming year. The Southern Pacific is credited with placing an order for 44,600 tons of rail to be rolled in Birmingham, while further export business is said to have been obtained. The rail mill at the Ensley steel mills of the Tennessee Company has been going at a lively clip for some time, the greater portion of the output being exported. The steel wire and wire products business has also been coming in and the plants of the American Steel & Wire Company, (Steel Corporation), and the Gulf States Steel Company, (independent), have been operating in their wire mills almost to capacity. There has been some improvement in demand for other shapes of steel recently and the conditions and prospects with the steel mills are bright.

The coal trade in Alabama has been showing indications of improvement for the past three or four weeks. Production has reached the 265,000 tons mark per week, with normal around 305,000 tons. The railroads are in position to handle all the coal that can be offered, equipment being gotten in better shape right along. The railroad shops in Birmingham are working on car repairs, and one of the car works in Anniston having a large contract with repairing.

Coke production is also improving right along. There is a good demand for the by-products of coal, benzol, tar, sulphate ammonium, and other things. The coke quotations continue firm around \$5 for furnace, \$6 for foundry and \$6.50 for the pitch-coke, the new coke of the district, being manufactured by the Barrett Company with pitch in bee-hive ovens.

The scrap iron and steel dealers report plenty of stock on hand and every preparation for an increased demand and consumption. Quotations follow:

PIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$19.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$19.50; iron of 2.75 to 3.25 per cent silicon, \$20.00; iron of 3.25 to 3.75 per cent silicon, \$20.50; iron of 3.75 to 4.25 per cent silicon, \$21.00; charcoal iron, f. o. b. furnaces, \$35.00.

OLD MATERIAL.

OLD MAILBRIAN.			
Old steel axles	\$17.00	to	\$18.00
Old iron axles	21.00	to	22.00
Old steel rails	12.00	to	13.50
Heavy melting steel	10.00	to	11.00
No. 1 R. R. wrought	13.00	to	14.50
No. 1 cast	17.00	to	18.00
Stove plate	12.00	to	13.50
Old car wheels	14.00	to	15.00
Old tramcar wheels	13.00	to	13.50
Machine shop turnings	4.00	to	5.00
Cast iron borings	4.00	to	5.00

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RAILROADS

New Electric Railway Terminal Put in Service.

The Washington, Baltimore & Annapolis Electric Railway Co. has completed and occupied its new passenger and freight terminal station at Baltimore. It was put in service on October 30, the contract having been awarded April 15 last for the passenger features and the improved freight station; part of the site had been used for freight alone for several years. This improvement enables the company to save four blocks in running passenger cars through crowded streets and also affords it a spacious and finely lighted passenger depot with full modern equipment of every convenience for the public and employes. The terminal is situated at the southwest corner of Howard and Lombard streets within five minutes walk of the retail shopping district, the company having sought to keep the terminal in proximity thereto.

There is a four story office building of reinforced concrete construction with waiting room, restaurant, ticket office, baggage room, etc., on the first floor and back of this is a one story extension covering the passenger platforms, the freight station and platforms being farther back. Carsenter and leave the terminal over loop tracks. The improvements cover a lot of about 384 by 272 feet in dimensions and the facilities are increased about 300 per cent. There is trackage for 48 cars. The entire cost was about \$875,000. The George A. Fuller Co. were the builders and Dreher, Churchman, Paul & Ford architects of the buildings just finished. George T. Bishop, of Cleveland, Ohio, is president, and James J. Doyle, of Baltimore, vice-president of the railway.

Lumber Rates Not to Be Advanced.

Mobile, Ala., November 4-[Special.]-In adjusting their tariffs to comply with the Interstate Commerce Commission's order in the Meridian rate case the Mobile & Ohio Railroad, the Southern Railway and the Alabama, Tennesse & Northern Railroad advanced rates on lumber from 50 to 300 per cent from points in Alabama and Mississippi to Mobile. On one road for an eighty mile haul the rate was advanced from 141/2 cents per hundred pounds to 64 cents, with similar increases for other distances. The Mobile & Ohio Railroad has now advised the traffic bureau of the Mobile Chamber of Commerce that the old lumber and timber rates will be continued and the roads have adardoned the idea of putting into effect the proposed higher freight charges. It is understood that the Southern Railway and the Alabama, Tennessee and Northern will take similar action. Following publication of the new tariff, the traffic association of all Alabama cities involved filed vigorous protests.

Electric Railway and Light Deal.

The stocks of the Cumberland Electric Railway Co., of Cumberland, Md., and also of the Edison Electric Illuminating Co., of that city, have been purchased by Thomas B. Finan, of Cumberland, on behalf of himself and Townsend Scott & Son, bankers, of Baltimore, Md. The deal is subject to the approval of the Public Service Commission of Maryland. It involves from \$2,000,000 to \$2,500,000 and the new owners contemplate putting a large amount of new capital into the properties for extensions and improvements. It is not expected that there will be any objection to the approval of the sale.

George L. Wellington, formerly a United States Senator from Maryland; James A. McHenry, Charles G. Holzshu and W. Milnor Roberts held, it is stated, the controlling interest in the electric railway, and also the entire stock of the illuminating company, Mr. Wellington being president of both corporations.

Petition to Abandon Chattanooga-Gadsden Line.

A petition has been filed in the United States district court at Chattanooga, Tenn., asking for a decree directing that the Tennessee, Alabama & Georgia Railroad be abandoned and the track sold for junk, the other property also to be sold.

The petitioners are Joseph J. Slocum, president; Henry W. De Forest, vice president, (both of New York) and others, all of them being trustees of the estate of Mrs. Margaret O. Sage, deceased, widow of Russell Sage. The estate holds first mortgage bonds. Chas. Hicks, of Chattanooga, is receiver for the road, and it is alleged in the petition that the road has been losing money month after month. The property has been offered for sale without result and it is to be offered again on November 15, which date has been selected by the court to hear the petition for abandonment.

This line, formerly known as the Chattanooga Southern Railroad, is 86¾ miles long from the state line between Tennessee and Georgia, to Gadsden, Ala., between which point and Chattanooga its trains are operated, connection to Chattanooga being over the Belt Line and the Nashville, Chattanooga & St. Louis Railway, about 7¾ miles. There are 7 locomotives and 72 cars owned.

Freight Movement Shows Gratifying Gain.

The volume of freight on the railroads continues to increase. Figures compiled by the car service division of the American Railway Association show the number of cars loaded with revenue freight during the week ended October 22 totaled 962,292, an increase of 56,258 cars as compared with the previous week. This was 96 per cent of the number loaded during the corresponding week of last year and was the largest number loaded in a week since October 30 1920. Merchandise and miscellaneous freight are moving more freely than last autumn, for during the week 575,625 cars were loaded with this class of freight or 15,700 more than in the corresponding week a year ago. The coal movement continues to improve, but does not equal last year's activity, although nearing it.

Freight Station Contract Awarded.

The Missourl, Kansas & Texas Railway C. E. Schaff, receiver, has let contract to H. D. McCoy of Cieburne, Tex., for the construction of the "less than carload" freight station recently burned at Oklahoma City, Okla. The contract includes a freight house 45 by 401 feet, with a two story section of brick and frame measuring 45 by 71 feet to be used for offices. The warehouse portion is to be of frame mill construction, 45 by 330 feet, and it will have steel doors and maple floor. About 530 square yards of vitrified brick pavement and about 28,300 square feet of passenger platform will also be built. The work will be done under the supervision of F. Ringer, chief engineer of the road.

Equipment, Rails, Etc.

Southern Pacific Railway has ordered 44,600 tons of open hearth steel rails from the Tennessee Coal & Iron Co, for delivery next year. Estimated value of contract \$1,784,000. Illinois Central Railroad is reported in the market for

1,000 refrigerator cars of 40 tons capacity.

Cape Girardeau Street Railway, Cape Girardeau, Mo., has bought 4 new cars of the one man safety type.

St. Louis Southwestern Railway will build 71 freight cars at its shops in Pine Bluff, Ark., 60 of them being box cars.

The Alabama, Tennessee and Northern Railroad has ordered steel rails for five miles of track, according to an official announcement.

Authority Asked for \$12,000,000 Certificates.

Charles E. Schaff, receiver of the Missouri, Kansas & Texas Railway, St. Louis, Mo., has applied to the Federal Courts for authority to issue \$12,000,000 of receiver's certificates and the application has been taken under advisement.

GOOD ROADS AND STREETS

Contracts Awarded for Highways Costing Over \$1,300,000.

Raleigh, N. C., Nov. 4—[Special.]—At a recent meeting of the North Carolina State Highway Commission, bids were opened on five projects compromising 54.5 miles of hard-surfaced roads in the second district of the state, the material selected being Topeka bituminous concrete paving. The total cost approximates \$1,534,900.

The various projects, the mileage of each, and the names of the respective contractors are as follows:

Project 599, 6.81 miles in Greene County from Snow Hill to the Lenoir County line, to the West Construction Co. of Kinston, N. C., at \$196,446 for paving and to the Union Paving Co. of Philadelphia, Pa., at \$20,020 for the structures. The unit prices bid on Topeka paving were \$2.80 per square yard.

Project 616, 10.01 miles of 18-foot roadway in Wayne County from Goldsboro to the Lenoir County line, to the Union Paving Co. of Philadelphia, Pa., at \$268,357.80 for roadway and \$15,247 for structures. The unit prices on Topeka paving was \$2.42 per square yard.

Project 578, 9.93 miles in Craven County from Newbern toward Morehead City, to the Union Paving Co. of Philadelphia at a \$246,068,60 for roadway and \$16,609,60 for the structures. The unit price on Topeka was \$2.32 per square yard.

Project 694, 12.03 miles in Pamlico County from the Craven County line to Bayboro, to the Union Paving Co. of Philadelphia, Pa., at \$263,022. There are no structures on this project.

Project 636-B, 15.76 miles of 9-foot road in Jones County from Trenton via. Pollocksville to the Craven County line, to the Union Paving Co. of Philadelphia, Pa., at \$292,635.20 for roadway and at \$16,493.70 for structures, the unit price on Topeka paving being \$3.10. Contract was not awarded.

On the 38.8 miles of hard-surfacing which was awarded, the Topeka price was \$264,000 less than the nearest concrete bid, either plain or reinforced.

Many State Road Contracts Awarded in Florida.

Jacksonville, Fla., November 4—[Special.]—A number of important good roads contracts were awarded last week by the State Roads Department at Tallahassee. The largest contract went to J. Y. Wilson of Jacksonville for paving a ten mile section of road extending from Lake City to the Baker County line. The specifications call for three-inch slag, penetration macadam, on eight-inch compact bed rock base, the contract figure being \$255,033 cash or a somewhat larger sum in Columbia County bonds. Other contracts awarded include the following:

J. D. Donahoo of Perry, Fla., contract at \$32,000 for excavation of drainage canals of Chattahoochee river bridge; W. P. Kennedy, Quincy, Fla., contract at \$3,837 for wooden bridge near Lloyd, in Jefferson County, on State Road No. 1; Florida Engineer and Construction Co., Oveido, Fla., drainage construction work on project No. 18 on Road No. 3, in Putnam County, a distance of about 12.8 miles, at a cost of \$19,789. The Luten Bridge Co. of York, Pa., received contract at \$26,534 for drainage construction work on project No. 33, on Road No. 2 in Alachua County, about 12-1-2 miles of road, also for similar work in Volusia County, from DeLeon Springs to the Putnam County line for \$26,219.

The largest number of contracts to any individual bidder was awarded to Clayton and Mitchell of Thomasville, Ga. The contracts were for drainage structures covering about

fifty-two miles of State Road No. 1 in Duval, Nassau, Baker and Columbia counties. The contract prices follow: Project No. 11, \$23,462; project No. 12, \$4,408; project No. 22, \$5,513; project No. 23, \$16,887; project No. 24, \$3,597. This firm was also awarded contracts for drainage construction work on projects 25 and 32, covering about twelve miles on State Road No. 2 in Columbia and Alachua counties, at \$11,835 and \$35,486, each, respectively.

\$2,700,000 of Road Bonds Sold.

Dallas, Texas, November 4.—[Special.]—A road bond issue aggregating \$2,700,000 was sold this week to Edwin Hobby, president of the Hobby Investment Co., representing J. T. Bowman and S. R. Fuller of Austin, who in turn represented a syndicate of Eastern bond houses.

The roads to be built from the funds are as follows: East pike, 15.4 miles, Dallas via Mesquite to county line. Lancaster road, 14.45 miles, Dallas to the county line via Lancaster. Preston road, 12.43 miles, Dallas to county line. Coppell-Irving road, 25.7 miles, Dallas via Irving and Coppell to county line.

It is estimated that about 1000 men will be put to work at once on this new construction.

\$400,000 Road Contract Awarded.

Bessemer, Ala., November 2—[Special.]—Contract has been awarded at approximately \$400,000 to Dunn Construction Co., of Birmingham for building about ten miles of paved road from Twelfth and Ninteenth streets, Bessemer, to Fairfield. Connection will be established with the South Bessemer highway by the county highway now in construction through the city.

\$600,000 Bond Issue Voted for Roads.

Vernon, Texas, November 2.—[Special.]—Wilbarger County's \$600,000 road bond issue was put over here on October 30, by a landslide in its favor. About \$300,000 will be spent on concrete roads running in four directions out of Vernon. \$200.000 will be devoted to dirt roads of the county and the remainder will be used to take up road bonds in one of the county precincts.

\$700,000 for Roads and Bridges.

Bartlesville, Okla., November 4.—[Special.]—A \$700,000 issue of road and bridge bonds was authorized by a safe majority in an election held here last week. Neva M. Scott is county clerk.

Large Cotton Mill Completed.

The large cotton mill of the Stonecutter Mill Co. at Spindale, N. C., has been completed and placed in operation. The mill buildings are 450 x 157 feet, of concrete, steel and wood construction. An electric power plant will be installed to operate the mill equipment, the latter including 500 looms. J. E. Sirrine & Co. of Greenville, S. C., are the engineers. The mill company has an authorized capital of \$2,000,000, the officers being: S. B. Tanner, president; T. B. Lovelace, vice-president, and K. S. Tanner, secretary-treasurer.

Authority has been granted to the Jenkins Mills of Batesville and Greenville, S. C., to increase its capital stock from \$25,000 to \$50,000. This company was lately noted incorporated with \$25,000 capital.

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LUMBER AND BUILDING MATERIALS

Upward Tendency in Construction Continues—Reduction in Freight Rates Imperative.

According to the Monthly Digest of conditions prepared by the Common Brick Manufacturers' Association of America, the upward tendency in the construction industry continues strong. In August and September an improvement was noted in the relation of orders on the books to stocks on hand. It was also expressed in the report of the manufacturers as to outlook for the future. This month the tendency has its effect upon the price of brick. The Digest continues:

"It was predicted that a stiffening of demand would show itself in an equalization of prices. While the composite price drawn from the current reports stands almost exactly as it was a month ago, being \$13.80, as against \$13.87 on September 1, the variation between the highest price and the lowest price is less than it was a month ago. In some sections, where overcompetition had driven the price below cost of manu facture, there are found advances in the price due to the better demand for brick. In other sections, where the price was based upon fractional production, which always sends up the unit price, there is a lowering of the quotation, due to a larger production from the plants. Altogether price quotations are on a much more businesslike and wholesome basis.

"There is yet practically no relief in freight rates, and until the rate upon brick is reduced many large building centers which receive their supply by rail will continue to pay on the job a price that is too long on the transportation side. In Ohio a reduction in the rate on paving brick is already in effect and the Public Utilities Commission has promised that like reductions will be effective on building brick.

"A few months ago the producers of heavy building materials stood almost alone in their contention that exorbitant freight rates were blocking building operations. Railroad officials denied it; the Interstate Commerce Commission showed no sympathy with the clay industry; but today there is general recognition of the fact and such wide-spread discussion of high freight rates that it is believed some relief must surely come soon. The Unemployment Conference in Washington put emphasis upon the fact that high freight rates prohibit the shipment of heavy materials in many localities, holding up building and contributing to unemployment.

"The brick manufacturers may take considerable encouragement from the fact that the whole country is at last agitating the subject of freight rates. To the brick manufacturer the freight rate has a double bearing. It puts an excessive cost upon his fuel supply, as well as an excessive rate upon the delivery of his finished product. The reduction of freight rates will almost immediately be reflected in the price of brick delivered on the job.

"The coming of winter, which results in the closing of many plants in the colder climates, will find a smaller stock of building brick on hand than has been recorded in many years. If the general pick-up in industrial conditions continues the brick men will find themselves pressed to take care of the demand when the spring season opens. The chance that fuel may cost less, and a possible reduction in some other elements of manufacture will tend to deter those manufacturers who might operate during the winter from piling up stock against the spring demand. Practically every manufacturer of brick was caught in the early part of this year with stocks that were produced at the highest cost known to the industry, and with a decilning market were forced to sell them at a loss.

About 75% of the manufacturers contributing to this month's Digest state that the outlook is fair to good. This

optimism seems to be about equally distributed among the 10 districts into which the membership of this Association is divided for the purpose of this report. Every section seems to have felt something of the business revival.

"Out of a total of 104 manufacturers reporting, 54 say that manufacturing costs have not changed during the past month. Fourteen report diminishing costs, and only 6 report increased costs. Those reporting the increase are in the western and mountain states."

Logging Men Meet at New Orleans.

New Orleans, La., Nov. 4,—(Special)—The Southern Logging Association held its eleventh annual convention in this city last week, the three day session being marked by an unusually large attendance. An interesting and instructive program was presented in which were discussed the many problems of the logging foreman and others intimately identified with that branch of the lumber industry. President C. C. Curry of the Coxheath Lumber Co., Coxheath, Ala., delivered the opening address and told of the past year's work. State Forester V. H. Sonderegger of Louisiana discussed in a particularly illuminating fashion the relationship of forestry to practical logging.

Officers were elected for the ensuing year as follows: President, Oscar Marsan, Opdenweyer-Alcus Cypress Co., Hope Villa, La.; First Vice-President, J. S. Lee, Industrial Lumber Co., Elizabeth, La.; State vice-presidents: Alabama, P. A. Quinn, Headly Pine Co., Uniform; Arkansas; W. H. Lee, Union Sawmill Co., Huttig; Florida, J. A. Penton, W. B. Harbeson Lumber Co., DeFuniak Springs; Louisiana, J. B. Bivens, Louisiana Sawmill Co., Glenmora; Mississippi, Clarence Vaudercook, Long-Bell Lumber Co., Crandall; Oklahoma, J. M. Campbell, Choctaw Lumber Co., Brokenbow; Tennessee, A. M. Horton, Stimson Lumber & Veneer Co., Memphis; Texas, C. H. LaCroix, Lufkin Land & Lumber Co., Lufkin; Virginia, R. R. Camp, Camp Manufacturing Co., Franklin.

Orders for Southern Pine Remain Relatively High.

New Orleans, La., Nov. 4—[Special]—For the week ending October 28, 130 mills of the Southern Pine Association report orders for 3,736 cars or a total of 81,160,864 feet, an average per mill of 624,314 feet. Shipments for the week were 88,807,712 feet, an average per mill of 683,136 feet. Production for the week was 68,178,513 feet which is 17,541,406 feet below normal, or 20,46 per cent. Shipments were 20,629,199 feet above production or 30,26 per cent. Orders exceeded production for the week by 12,982,351 feet or 19,04 per cent. Orders were 8.61 per cent below shipments. The decrease in "orders on hand" amounted to 2,79 per cent.

The report for the week follows:

Orders on hand beginning of week		Feet 274,113,432 81,160,864
Total		355,274,296 88,807,712
Orders on hand end of week	12,266	266,466,584

Demand for Lumber Increasing at St. Louis.

St. Louis, Mo., Nov. 1.—[Special.]—There is an increasing demand here for lumber, the large number of building permits for September offering further evidence that the activity of the past two months is to continue. The hardwood market continues to strengthen, red gum having advanced recently about \$10 a thousand. sarge sales of oak are reported to floor manufacturers and an increased demand is noted for logrun maple.

MECHANICAL

Air-Operated Pick for Clay, Gravel, Etc.

A new air tool just placed on the market is the "Little David" pneumatic scoop, which has a shovel-pointed pick for

excavating clay, gravel, etc., enabling operatives to do much more rapid work than is possible with the old hand picking method. Several leading contractors have found this new device an important labor saver in both tunnel and trench digging through clay where large power shovels could not be employed. The tool consists of a long stroke hammer fitted with a special handle and also equipped with a scoop which is held in place by a safety retainer. The hammer drives the scoop into the ground thus prying loose the material to be excavated. The hammer may also be fitted with steels for working in hard gravel or for breaking light concrete, etc. This scoop, which is numbered 56-H, is made by the Ingersoll-Rand Company, 11 Broadway. New York.



DETACHABLE SCOOP.

AIR TOOL COMPLETE.

Small Elevator for Moderate Loads.

A complete, compact and inexpensive electric elevator designed for use in retail stores and small buildings is illustrated in the accompanying picture. A machine of this pat-

tern and dimensions will fit admirably in many places for

handling materials and supplies, particularly when they are stored in basements. This elevator has a carrying capacity of 1,000 pounds at the rate of 50 feet a minute and from this to 2,000 pounds at 25 feet a minute. It is equipped with safety catches, as are heavier machines. Each of these elevators is erected in the shops of the manufacturers and afterwards is taken apart and shipped "knocked down" to the purchaser, who by following directions can erect it without employing skilled labor. All supplies are furnished complete, every hole is bored, and the simple in-



structions facilitate the in- A HANDY ELECTRIC ELEVATOR.

Stallation. The manufacturers are the Kimball Brothers Company, Council Bluffs, Iowa, who have in this new machine added to their line of passenger and freight elevators an elevator to take care of small loads in small places instead of a dumb waiter. Elevators of this pattern already installed are reported to have been immediately successful.

Commendations, Kicks and Comments

Hoping for Inflation Before Bankruptcy Comes.

H. E. PARK, Slyvester, Ga.—Kindly credit my subscription with \$10. I thank you for the splendid fight you make for us, and I'm hoping the Administration will inflate before we are all bankrupt.

Would Have Every Minister a Reader.

JOHN F. VINES, Pastor, First Baptist Church, Roanoke, Va.—Please send Manufacturers Record to Rev. D. W. White, Pennington Gap, Va. for one year. I wish every minister in the land would read your great paper, perhaps with this and the Bible we might get this old world more safely founded on the rock. I am enclosing check. Thanking you and with best wishes, etc.

Best Exponent of True Americanism.

JAMES C. FISHER, Reedsville, Va.—I do not want to miss a single copy of your valuable publication, which I consider the best Exponent of real true Americanism of any paper I know of.

I heartily endorse every word of your first article in your last issue, October 20, relative to the country refusing to surrender once and forever to the Labor Unions. Indeed there is very little in your paper that I differ with you in the least on questions of public policy. I cannot understand how anybody, who has the real interests of America at heart, can differ with you on those questions. I enclose check for my subscription.

Worth the Price.

LAURUS LOOMIS, Catlin & Co., New York.—It does not need any argument to induce the writer to continue subscribing to the MANU-FACTURERS RECORD.

Have noticed the patriotism and firm stand taken by Mr. Edmonds. His October 20th editorial and letter to President Harding is worth the price of the subscription. Cannot be possible that President Harding, good Baptist as he is, and Lloyd George another good Baptist, would permit opening of the conference without invocation to the Supreme Being which has been considered by many the reason for the previous failure at Versailles.

Am subscribing to two London Papers and send occasionally the MANUFACTURERS RECORD to let them know what we are doing here. Enclosed please find check for \$6.50 for yearly subscription.

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Construction Department

EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

DAILY BULLETIN.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southewest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

Bridges, Culverts and Viaducts.

Ark., Charleston—Franklin County appropriated \$25,0000 for building bridge over Mulbery River. Address Quorum Court.

Ark., Gurdon—Whelan Bridge Dist. will uild 220-ft. steel span bridge; alternate deigns on plain and reinforced concrete abutments; bids until Nov. 15; changed date from Oct. 25; Parkes Engineering Co., Engr., Pine luff, Ark. Lately noted bids Oct. 25. (See achinery Wanted—Bridge Construction.)

Ark., Pine Bluff-Jefferson County Bridge Dist. will build 1280-ft. trestle, steel bridge, 120-ft. spar; low bidder Vincennes Bridge Co., Vincennes, Ind. at \$58,377; Parkes Engineering Co., Engr., Pine Bluff, Ark. (Lately noted inviting bids.)

Fla., Clearwater—Pnellas County will reconstruct 2 bridges; cost about \$100,000. Address County Commrs.

Fla., Lloyd—State Road Dept., Tallahassee, Fla. let contract to W. P. Kennedy, Quincy, Fla., at \$3,837 to build wooden bridge in Jefferson County,

Fla., Sebring—State Road Dept., Tallahassee, Fla. plans building bridge across Kissimmee river on State road No.8 between Highland and Okeechobee counties. Fla., Valparaiso—City will build 750-ft, pile, bent timber bridge; wood floor; bids about Dec. 1. Address City Commrs. Lately noted inviting bids Sept. 15. (See Machinery Wanted—Bridge Construction.)

Mo., Clayton—State Highway Dept., Jefferson City, Mo., will construct 48-ft. reinforced concrete thru girder span bridge on State road from St. Louis southward over Mattis Creek; cost \$7,719.10; Federal Aid Project 80; also three 23-ft. reinforced concrete slab spans on State road from Weber road westward over Gravols Creek; cost \$9,363.10; Federal Aid Project 78; both St. Louis County; H. D. Griffith, Div. Engr., DeSoto, Mo.

Mo., Mexico—State Hghway Dept., Jefferson City, Mo. will build 20-ft. reinforced concrete slab span bridges on State road from Mexico eastward and westward; cost \$10,-360.80; Audrain County, State Aid Project 20.95; M. J. Hanick, Div. Engr., Macon, Mo.

Mo., St. Joseph—Buchanan County will build steel bridges across Platte, One Hundred and Two and Three Fork Drainage Ditches; v steel bridges, 100-ft, two 120-ft., 130-ft, and two 150-ft. spans; cost \$67,520, 41; bids opened Nov. 4; J. D. Mohler. Highway Engineer.

Mo., Warrenton—State Highway Dept., Jefferson City, Mo., will build 20 and 14 ft. reinforced concrete slab span bridge on State road from Warentown westward; cost \$7,114.70; Warren County, State Aid Project 20.68; bids until Nov. 15; H. D. Griffith, Div. Engr., DeSoto, Mo. (See Machinery Wanted—Bridge Construction.)

Okla., Chickasha—City voted \$30,000 bonds for bridge construction as follows: 2 reinforced concrete bridges over Line Creek and bridge on Sixth and bridge on Fourth St.; John C. Milliken, City Engr. (Lately noted to vote.)

S. C., Charleston—Charleston County will vote Nov. 22 on \$400,000 bonds to construct or repair bridges and construct roads; Wm. P. Cantwell, County Supvr.

Tex., Port Arthur—City voted \$66,000 bonds for remodeling drawbridge over Sabine-Neches canal. Address The Mayor. (Lately noted to vote.)

Canning and Packing Plants.

Fla., Sarasota—Sarasota Fruit Products Co., let contract to erect plant to mfre. marmalades, jellies, etc. (Lately noted contemplated.)

Miss., Gulfport—Mississippi Cane Syrup Co., capital \$20,000, organized with J. C. Clower, Prest.; has building; will insiall \$10,000 canning machinery for cane syrup and molosses; daily output 3,000-gal. (See Machinery Wanted—Filling Machinery; Capping Machinery; Kettles, etc.)

Mo., St. Louis—Sieloff Packing Co., E Sieoff, Prest., 4339 Natl. Bank Bldg., let contract o construct 2-story 120x120 ft. cooling celar.

Clayworking Plants.

Md., Baltimore—Clay Products—Patuxent Clay Products Co., 206 Water St., contemplates erecting \$150,000 fireproof building; Install machinery to mfre, hollow tile.

Coal Mines and Coke Ovens.

Ky., Lewisport—Central Kentucky Block Coal & Mineral Co., N. A. Cramer, Mgr., will develop 25,000 acres coal land, estimated output 1000 tons.

Ky., Louisville—Amburgy Coal Co., increased capital from \$50,000 to \$175,000.

W. Va., Gilmer and Webster Counties— Peerless Smokeless Smithfield Coal Co., Clarkesburg, W. Va., plan extensive coal developments; W. L. Britton, Supt., Marcus, W. Va.

W. Va., Huntington—Peter Cave Coal Co., J. Harshbarger, Prest. contemplate increasing capital from \$100,00 to \$150,000.

W. Va., Morgantown—Fieldler Coal & Coke Co., capital \$25,000, incptd. by Harold G. Hodges, Morgantown, W. Va.; Clarence H. Fielder, Parkersburg. W. Va.; James H. Henshaw, Fairmont, W. Va.

W. Va., Wheeling—Aetna Development Co., capital \$150,000, incptd. by Charles L. Sonneborn, John E. Stevenson and Charles C. Woods.

Drainage Systems.

Miss., Greenwood—Abiaca Drainage Dist. Commrs. of Leflore, Homles and Carroll Counties will construct drainage channels, 500,000 cu. yds. excavation; bids until Nov. 22; Morgan Engineering Co., Engr. (See Machinery Wanted—Drainage.)

Miss., Greenwood—Board of Drainage Commrs. of Leflore County, W. T. Loggins, Prest., acting on behalf of Rucker Drainage Dist. will construct 3.09 ml. canal, tetal excavation 198,355 cu. yds.; also clearing Turkey Bayou, distance of 27,900 ft., approximately 64.2 acres; bids until Nov. 10; Ell Abbott, Jr., Engr. (See Machinery Wanted—Drainage.)

Mo., Albany—Gentry County Drainage Dist., care of Walter Gladstone, Stanberry, Mo., let contract to Callahan & Walker Construction Co., 401 Bee Bldg., Omaha, Neb. to construct drainage system; C. E. Jacoby Engineering Co., 527 Shukert Bldg., Kansas City, Mo. (Bids lately noted.)

Electric Plants.

Ark., Picron—Arkansas Light & Power Co., H. C. Couch, Prest, and Gen. Agr., Pine Bluff, Ark., will install 4,000 K. V. A. turbogenerator, switch boards and other electrical equipment, costing \$100,000.

D. C., Washington— U. S. Government let contract to Riggs, Fistler & Stringer 216 N. Calvert St., Baltimore, Md., at \$240,000, to install power plant, heating and ventilating systems, and wiring for School No. 174.

Ga., Metter-City will enlarge electric light and water plant. Address The Mayor.

Miss., Centreville—City, care of C. C. Germany, plans installing additional equipment in electric light plant.

Mo., Excelsior Springs—Excelsior Springs Water, Gas & Electric Co., will construct transmission line to Rayville, costing \$8,-000; will purchase Plattsburg Light & Power Co., Kearney Electric Co., and Holt Electric Light Co.

Mo., Independence—City, Wm. Stewart Mcoy, Mayor, will expend \$35,000 to install tachinery including spray system, etc., in lant; develop 1,000-H.P.; day labor; Arthur Smith, Consit. Engr., City Hall. (Lately oted issued \$35,000 bonds.)

N. C., Enfield—City will expend \$190,000 to construct electric lighting, water and sewerage system; Wm. C. Olsen, Consit. Engr., Kinston, N. C.

N. C., Littleton—Town, McM. Furgurson, fayor, will enlarge electric light system; oted \$15,000 bonds.

Okla., Marlow-City plans expending \$50,-000 to extend power plant; V. V. Long & Co., Consit. Engrs., 1300 Colcord Bidg., Oklahoma City.

Tex., Edinburg—City, A. J. Ross, Mayor, let contract to Gulf Machinery and Ship Supply Co., Galveston, Tex., to construct electric power plant and water-works; H. E. Wilcox, City Engr. (Lately noted bids opened.)

Tex., Houston-Houston Light & Power Co., S. R. Berton, Jr., Mgr., will expend \$500-000 to extend electric generating plant.

Tex., Mexia-Central Texas Ice, Light,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Water & Sewerage Co., will expend \$50,000 to install new engine and pump in light plant.

Tex., Vernon—City, Harry Mason, Mayor, plans expending \$75,000 to extend lighting system; will vote on bonds. (Lately noted.)

Va., Stuart-Rangely Power Co., capital \$50,000, incptd. with J. Hannon Schoofield, Prest., New York; H. L., Hooker, Secy. Stuart.

W. Va., Bluefield—Appalachin Power Co., will install additional boilers and transformers at Glen Lyn station; increase plant capacity from 20,000 to 40,000 K. W.; Viele, Blackwell and Buck, Conslt. Engrs., 49 Wall St., New York.

Fertilizer Plants.

Fla., Jacksonville—Trueman Fertilizer Co., capital \$200,000, incptd. with R. B. Trueman, Prest.; J. J. McGrath, V-P.; G. R. Needham, Secy.-Treas.

Flour, Feed and Meal Mills.

La., Gretna—United States Flour Milling Co., Kansas City, Mo., will erect concrete and frame branch plant; construct conveyors to connect building with wharf.

S. C., Darlington—Darlington Syrup Mills, H. A. Humphries, Secy.-Mgr., will erect 95x 65 ft. metal roof and sides building; install machinery; hourly output one ton feeds (See Miscellaneous Factories.)

Foundry and Machine Plants.

Ala., Anniston—Foundry—National Forge Co. will rebuild plant recently burned at loss of \$40,000.

Ala., Birmingham—Cast Iron—McWane Cast Iron Pipe Co., organized with J. R. McWane, Prest.; J. D. Sample, V.-P.-Treas.; leased plant for mfre. c.st iron pipe. Lately noted.)

D. C., Washington—Armature—Central Armature Works, 635 D St., N.W. will erect 3 story plant, 70x110-ft., estimated cost \$35,-000; Cutler & Moss, Archts., 13th. and New York Ave.

Fla., Wauchula—Implements-Polk, Hunt & Davis, capital \$50,000, incptd. with V. S. Polk, Pres.; W. P. Davis, Secy.-Treas.

Ga., La Grange—Machine shop, etc.,—J. T. Tice Co., purchased site, will erect 175x75-ft. building for foundry and machine shop.

Md., Baltimore—Machine Shop—Fowler & Farley Engineering Co., 2121 Oak St., organized with Claude Farley, Prest.; Elnathan A. Fowler. V.-P.; Arthur R. Kasson, Secy.-Treas. and Mgr. have leases under consideration; install equipment. (See Machinery Wanted—Lathes; Presses; Pipe Bending Machines; Shapers; Grinders; Millers.)

Mo., St. Louis—Repair Shop—United Railway Co., A. Perkins, Mgr., 39th. and Park Ave. will erect 3 story repair shop, estimated cost \$180,000

Mo., St. Louis—Iron—Chester Iron & Foundry Co., A. J. Schaelieh, Prest., 7800 Vulcan St. plans erecting 1 story 45x117-ft. cast iron foundry; L. Haeger. 3844 Utah St., Archt.

Gas and Oil Enterprises.

Ark., Fayetteville—States Producing Co., capital \$1,559,000, incptd. by Rush Culver, J. B. Collins; both Fayetteville; J. F. Little, Rogers, Ark.

Ky., Owensboro—R. H. Oil Co., incptd. by W. E. Whitley and Price Ray; both Owensboro; W. H. Duncan and Ed. O' Donnell; both Toledo, Ohio.

Okla., Apperson-Apperson Gas Co., cap-

ital \$20,000, incptd. by F. A. and Mabel Bailey, and Lee Pringey; all Cushing, Okla.

Okla., Cement—Pipe Line—Magnolia Petroleum Co., Dallas, Tex., is reported to construct pipe line into Cement field.

Okla., Enid—Arrow Oil Co., capital \$10,000, incptd. by E. J. Masemore, Will C. and Elle E. Allen.

Okla., Grandfield—Revenue Oil Co., capital \$150,000, incptd. by E. E. Goddard Alex. Hamilton and Roy McNee.

Okla., Okmulgee-White Star Drilling Co., capital \$10,000, incptd. by P. A. and Laura H. Bohnert and Wm. K. Donaldson.

Okla., Tulsa—Dunkin—O'Brien Oil Co., capital \$25,000, incptd. by J. J. O'Brien, E. M. DeMoss and W. H. Beddome.

Tex., Beaumont—Refinery—Chamber of Commerce, E. C. Bracken, Gen Mgr., interested in establishing refinery.

Tex., Currie, P. O. Wortham—Pipe Line— Humphreys Pure Oil Co., will construct pipe line through Mexia to Gulf.

Tex., Fort Worth—sefinery Trans-continental Oil Co., plans enlarging refinery; increase daily capacity to 9,000 barrels.

Tex., Franklin—Pipe Line—Humble Pipe Line Co., Houston, Tex., plans constructing pipe line through Robertson County to connect with Mexia field, passing through Petteway and Elliott.

Tex., Houston—Oil Production Co. of Houston increased capital from \$55,000 to \$75,000.

Tex., Orange—Pipe Line—Humble Oil & Refining Co., Houston, Tex., will construct 2-mi. 2-in. pipe line from Orange field to St. Germain tank farm; erect earthern tanks.

Va., Orange—Pamunkey Oil & Development Co., Incptd. with Jos. Herbert Mathews, Jr., Prest., Robert Baxter Roberts, Treas.; both Orange; Jos. Marshall Jackson, Secy., Lahore, Va.

W. Va., Charleston—Laing Oil Co., incptd. by A. C. Lawrence, E. S. White, A. G. Thompson.

W. Va., Warwood—P. O. Wheeling-Becksmith Oil Co., capital \$10,000, incptd. by Theodore Smith, Warwood; Hugh G. Beckett, E. Kettler; both Wheeling, W. Va.

Ice and Cold-Storage Plants.

Ala., Birmingham—Crystal Ice Storage Co., capital \$75,000, incptd, with George E. Brett, Prest-Mgr.; N. S. Brett, Secy-Treas.

La., New Orleans—City contemplates installing 21 ton refrigerating plant in Poydras market, Address Mayor McShane.

Mo., Salisbury—Salisbury Sanitary Ice & Supply Co., Harry R. Jacobs, Prest.-Mgr., let contract to Wm. Black to erect 35x40-ft. fireproof building; install mchy., all purchased; 10 tons capacity in 24 hrs. (Lately noted.)

Tex., Lockhart—H. A. Rader & Co., J. S. Story, Secy. will erect 1 story 40x80-ft. fire-proof building, estimated cost \$10,000; install electric driven 6x6 York compressor, direct expansion; A. Benchof, Archt. (Supersedes recent item.)

Tex., San Antonio—City Ice & Fuel Co., increased capital from \$85,000 to \$112,500.

Tex., San Antonio—Denver Ice & Fuel Co., capital \$50,000, incptd. by Charles H. Gurnisky, B. Uhling and Claude A. Nicholas.

Va., Lynchburg—Standard Ice Co., E. C. Ivey, Prest., 609 Main St., let contract to R. L. Daniel to erect 5 x 75-ft. building of brick construction, install refrigerating mehy. for ice storage. Lately noted to

increase capacity. (See Machinery Wanted Refrigerating Machinery; Insulation.)

Land Developments.

Ala., Anniston—Sunset Land Co., capital \$30,000, organized with Hillyer Robinson, Prest.; I. A. DeHart, Secy.-Treas.

Fla, Clearwater—City, J. R. Thomas, Clk., purchased Lake property; will develop for park. (Lately noted voted bonds.)

Fla., Palm Beach County—Palm Beach Groves & Nusery Co., organized with A. E. Parker, Prest.; J. B. McDonald, V.-P.; R. A. Conkling, Secy.; Chas. A. Brumley, Treas.; plans expending \$75,000 to develop 200 acre-site for citrus groves, etc.; bids opened for machinery; Harry Fugate, Engr., care J. B. McDonald Co.; all West Palm Beach, Fla. (Lately noted under West Palm Beach, incptd., capital \$100,000.

Md., Love Point—Love Point Resort Co., 216 St. Paul St., Baltimore, Md., capital \$150,000, incptd. by David G. McIntosh, Jr., Jno. G. Holloway and Arthur J. Watkins, all Baltimore.

Okla., Chickasha—City plans expending \$10,000 to improve park; construct swimming pool; Jno. C. Millikin, City Engr.

Tenn., Johnson City—H. D. Gump, will develop country club site into sub-divisions; E. S. Draper, Landscape Archt., 11 E. 5th St., Charlotte, N. C.

Tenn., Johnson City-Geo. Wofford plans developing estate; E. S. Draper, Landscape Archt., 11 E. 5th St., Charlotte, N. C.

Tenn., Kingsport—Eastman Corp. will develop "Edgewood" for residences; E. S. Draper. Landscape Archt., 11 E. 5th St., Charlotte, N. C.

Va.. Bristol—Joe S. Kite, Johnson City, Tenn., plans developing estate; E. S. Draper, Landscape Archt., 11 E. 5th St., Charlotte, N. C.

W. Va. Phillipi—Tygarts Valley Orchard Co., capital \$50,000, incptd. by D. D. Stemple, Jno. Hewitt and W. D. Corder.

W. Va., Princeton—Mercer Country Club, Hartley Sanders, Prest., plans developing country club grounds and golf course, including tennis courts, clock golf, drives, walks, gardens, etc.; E. C. Draper, Landscape Archt., 11 E. 5th St., Charlotte, N. C.; Donald Ross, Golf Archt., Consultant on golf course.

Lumber Manufacturing.

Fla., Point Washington—Point Washington Lumber Co., capital \$150,000, incptd. with S. R. Sanford, Prest.; N. P. Lesueur, Secy. Treas.

Ga., Savannah-Walker Lumber & Timber Co., R. L. Walker, Prest. will rebuild plant burned at loss \$65,000.

La., Alco—Alexander Lumber Co. let contract to Thrall & Shea, Lake Charles, La. to erect lumber mfg. plant, including band, circular and 48-in. gang saw mills, dry kilns, etc.; daiy capacity 200000 ft.

La., Farmersville—Whiteman-Decker Lumber Co., E. M. Decker, Prest., Alto, Tex. acquired extensive timber holdings, will erect plant on 100 acre site, also build 25 mile railroad, probably connect Farmersville and Kuston.

Miss., Newton—J. W. Chancellor Lumber Co., DeSota, Miss., purchased several thousand acres timber land, will develop; reported to erect two portable saw mills, planing mill and dry kilns.

N. C., Greensboro—Pledmont Building Material Co., W. McC. Neale, 730 S. Elm St., rented building, installed mchy. for mfre. of building material and mill work. (See Machinery Wanted—Lumber; Bricks; Shingles; Flooring; Roofing.)

Tex., Brookston—Brookston Lumber Co., capital \$10,000, incptd. by A. F., and G. D. Lackey.

Tex., Nacogdoches—Red Flat Lumber Co., capital \$10,000, incptd. by J. A. Spears, J. H. Buchanan and J. L. Langston.

Va., Fort Blackmore—Clinch Valley Lumber Corp. (lately noted incptd., capital \$250,000) organized with Leon Isaacson, Prest., Brooklyn, N. Y.; C. W. Boyd, V.-P., and E. R. Boyd, Treas., both Tazewell, Va.; E. L. Lambert, Seey., Coal Grove, Va.; Gallie Friend, Mgr., Fort Blackmore; will erect 56x 180-ft. saw mill and 32x50-ft. planing mill, construction by owners; install double band mill and planing mill mchy., all purchased; dally output 60,000 ft. hardwood.

W. Va., Elkins—Morrison, Gross & Co., re-organized with Cecil Gross, Prest.; H. C. Morrison, V.-P. and Gen. Mgr., mfre. hardwoods.

Metal-Working Plants.

Ala., Mobile—Copper Stills, etc.—Southern Copper Works, incptd. by T. J. Bender, Joseph Aubey and Emile Shuerman.

Fla., Deland—Metal Products—Deland Electro Plating Art Metal Works, organized with P. J. Thompson, Prest.; mfre. metal products.

Fla., Jupiter—Inlet Improvements—Palm Beach County Commrs., West Palm Beach, Fla., voted \$100,000 bonds to construct inlet from ocean to inland waters. (Lately noted to vote.)

Fla., St. Petersburg—Pler—City will temporarily restore pier damage by storm, approximate cost \$20,000; add 300 ft. to present dock, repair present 300 ft., installing trolley facilities; Government will dredge channel leading to basin; contemplate building in next 2 yrs. municipal pier costing between \$500,000 and \$1,000,000. Address The Mayor.

Mo., Joplin—Metal Shingle—Oliver Greenstreet contemplates establishing plant to mfre. zinc shingles.

N. C., Cherryville—Tin, etc.—Carolina Tin Co., capital \$300,000, incptd. by John J. George, M. L. Mauney, both Cherryville; D. E. Rhyne, Lincolnton, N. C.; mine tin and tin ore.

N. C., Greensboro—Wireless Equipment— Westinghouse Storage Battery Co., R. O. Holland, Gen. Mgr., 308 N. Elm St. plans erecting plant for mfre. of wireless equipment, telegraph apparatus, etc.

Okla., Oklahoma City—Separators—Steam Separators Mfg. Co., incptd. by Lewis Terry, Oklahoma City; W. W. Rowland and J. S. Hughes, Hobart, Okla.

Mining.

Ala., Flomaton—Sand and Gravel—Escambia Sand & Gravel Corp., C. D. S. Clarkson, Prest.-Mgr., install 8-in. pumping dredge, 6 car capacity, etc. all purchased. Lately noted to install dredging plant. (See Machinery Wanted—Screens.)

Tenn., Ducktown—Copper—Ocoee Copper Co., 1133 Volunteer Life Bldg., J. I. Carter, Prest., Chattanooga, Tenn. plans constructing plant, estimated cost with equipment \$200.000.

Tex., Freestone County—Lignite—Empire Fuel Co., Rockdale, Tex., purchased 200 acres lignite; will develop.

Va., Newport News—Mica—American Mica Mining Corp., capital \$250,000, incptd. with Allan D. Jones, Prest., Newport News; H. C. Field, Secy., Aston, Va.

Miscellaneous Construction.

Ala., Mobile—Terminals—Dixie-Portland Flour Co., Memphis, Tenn. contemplates building flour depot on river front.

D. C., Washington (Bellevue)—Radial Chimney—Navy Dept., Bureau of Yards and Docks, will construct radial brick chimney, 150 ft. high, 7 ft. Inside diam. at top, concrete foundation at naval experimental and research laboratory; bids until Nov. 16; Spec. 4534. (See Machinery Wanted—Chimney, Radial.)

Fla., Miami—Dock—City will vote Nov. 1 on \$300,000 bonds for improvement to local docks.

Fla., Pensacola—Wharves—City Comsn. contemplates expending \$200,000 on terminal facilities, plans acquiring Palafox wharves and adjacent property.

Fla., Pensacola—Wharf—E. E. Saunders Fish Co. contemplates expending about \$100,-000 on water front improvements.

Miss., Bay St. Louis—Pier—Hancock County Supvrs. will let contract for building 150-ft, extension to Bay St. Louis automobile ferry pier.

Mo., Kansas City—Heating System, etc.— Kansas City Stock Yards, care of W. H. Weeks, Live Stock Exchange Bldg. contemplates erecting 2 story 300x870-ft. exposition building including steam heating system, estimated cost \$400,000; construction by day labor; has plans.

Okla., Chickasha—Swimming Pool—City contemplates installing swimming pool in city park; John C. Millikin, City Engr. (See Land Development.)

S. C., Charleston—Conduit—U. S. Government let contract to Riggs, Distler & Stringer, 216 N. Calvert St., Baltimore, Md., at \$89,000 for underground electrical construction in navy yard.

S. C., Charleston-Terminals-Clyde Steamship Co., Edward A. Kelly, Gen. Mgr. contemplates enlarging terminal facilities.

Tex., Houston—Wharf—City, O. F. Holcomb, Mayor will construct Manchester wharf; bidders are Young Engineering Co., Doullet & Williams, Charles K. Horton, Tom Tellepsen. (Previously noted.)

Miscellaneous Enterprises.

Ala., Gadsden—Plumbing—American Plumbing & Heating Co., J. P. Reynolds, Mgr. purchased established plant, remodel and enlarge.

Ala., Tuscaloosa—Construction—Ferell Co., capital \$20,000, incptd. by Woolsey Ferrell, R. C. and H. S. Smith.

Fla., Bradentown—Transportation—Horace T. Bennett, Manatee, Fla. and W. E. Mann, Palmetto, Fla. with others interested in establishing company to operate boat line.

Fla., Fernandina—Laboratory—Florida Terminal Co., Ernest Moluar, Chemist, will erect slow burning building under supervision of R. M. Martin, plant Supt.; install complete laboratory with crushers, pulverizers, motors, etc. for analaytical chemical laboratory for phosphate and coal analysis. Lately noted to erect plant. (See Machinery Wanted—Crushers.)

Fla., Fort Myers—Publishing—Fo t Myers Press, capital \$60,000, incptd. with Morton M. Milford, Prest-Treas.: W. S. Creevey, Secy.; has building, mchy. purchased.

Fla., Miami-Abattoir-City contemplates

purchasing 40 acre site, will lease for establishing abattoir. Address City Mgr. Coe.

Fla., Palm Beach—Decorative Studios— Palm Beach Decorative Studios, capital \$10,-000, incptd. with George N. Hatch, Prest.; G. Leland Hatch, Secy.-Treas.

Fla., Tampa—Publishing—La Gaceta Publishing Co., capital \$25,000, incptd. with Julian Diez, Prest.; Elias Hanovega, Secy.-Treas.

Fla., Winter Park—Publishing—Sandspur Publishing Plant, capital \$25,000, incptd. with A. F. Hamna, Prest.; W. M. Ingram, Secy.-Treas.

. Ga., Augusta—Builders Supplies—Builders Supply Co., capital \$10,000, incptd. by J. A. Larouque, James B. Muljerin and A. B. Moore.

Ga., Columbus—Florist—Wheat & Shellnutt, capital \$20,000, incptd. by Geo. M. Wheat and O. F. Shellnutt.

Ky., Covington—Plumbing—John T. Underhill Plumbing Co., capital \$10,000, incpid. by John T. Underhill, C. L. and Leah Smarr.

Ky., Frankfort—Dry Cleaning—B. S. Gaines will erect two 1-story buildings, each about 17x40 ft., fire proof, brick walls, concete floors and roof, wire glass, metal doors, ventilators, safes, steel sash and trim; construction by day labor; will install electric dry cleaning mchy., motor, washers, drying tumblers, extractor, dry racks; Leo L. Oberwath. (See Machiney Wanted—Dy Cleaning Machiney; Motor.)

Md., Baltimore—Laboratories—Link-Con's Laboratories, 101 N. Gay St., capital \$25,-000, incptd, by Fred G. Linck, John D. Fitzgerald and Amos Shopf.

Md. Baltimore—Printing—Linotype Composition Co., 223 N. Holliday St. (lately noted incptd.).) organized with Robert M. Williams, Prest.; George W. Evans, Secy-Treas.; Robert F. Jacobs, V-P. and Mgr.; let contract for installing linotype machines, etc.

Mo., Kansas City—Laundry—Community Laundry Co., 3929 Broadway, will erect 1 story brick laundry building, \$15,000.

Mo., Monett—Dehydration—F. P. Sizer, James E. Sater and others interested in establishing \$50,000 dehydration plant.

N. C., Asheville—Laundry—Manhattan Laundry, capital \$25,000 dehydration plant. Greer, J. S. McAbee and R. L. Crook.

N. C., Charlotte—Contracting, etc.—Southside Land Co., capital \$200,000, incptd. by J. C. Cathey, C. M. Scott and S. L. Suggs.

N. C., Raleigh—Publishing—Western Carolina Publishing Co., capital \$50,000, incptd. by J. W., M. R. and John M. Mullen

N. C., Sanford—Publishing—Carolina Banner Publishing Co. organized with Lee G. McIver, Prest.; E. L. Howard, Secy.-Editor, S. C., Columbia—Contracting—Caughman Paving Co., capital \$50,000, incptd. with John W. Conder, Prest.; W. D. Caughman,

Jr., Mgr. S. C., Loris-Hardware-People's Hardware Co., incptd. with D. W. Hardwick,

Prest.; J. A. Bryant, Gen. Mgr.

Va., Richmond—Dyeing and Cleaning—Ashby B. Pyle, 315 N. 5th. St. let contract to C. F. Duggins at \$19,500 to erect 35x150-ft building: install \$15,000 for dyeing and cleaning plant; purchased. (Lately noted.)

W. Va., Charleston—μairy—Valley Belle Dairy Co., will erect 2 story, 40 x 90-ft building, cement and brick construction; estimated cost \$1.5,000.

Miscellaneous Factories.

Ala., Mobile-Turpentine, etc.-U. S. Tur-

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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ng ng st., pentine & Rosin Corp., increased capital from \$3,000,0 to \$6,000,000.

Ark., Springdale—Welch _cape Juice Co., Westfield, N. Y., plans establishing plant.

Fla., Daytona—Drugs—Halifax Pharmacy, capital \$50,000, incptd. with Bert Fish, Prest.; F. N. Conrad, V-P.; E. H. Armstrong, Secy.-Treas.

Fla., Jacksonville—Bakery—Up-to-Date Investment Co., capital \$10,000, incptd. with J. W. Coffey, Prest.; Kate H. Coffey, V-P.; Louise C. Scoffeld, Secy.-Treas.

Fla., Jacksonville—Bakery—Jacksonville Baking Co., capital \$20,000, incptd. with J. W. Carpeuter, Prest.; F. O. Bryant, V.-P.; J. J. G. Cooper, Secy.-Treas.

Fla., Miami Beach Sta., Miami—Bakery—Flamingo Bakery, C. D. Majewski, Owner, Biscayne Ave., purchased site; plans erecting bakery.

Fla., Tampa—Butter—Fox River Butter Co., incptd. with T. Ed. Bryan, Prest.; E. J. Keefe, V-P.; H. K. Ervie, Secy.-Treas.

Ga., Ashburn—Creamery—G. P. Betts, H. Bishop and others, interested in establish-lishing creamery.

Ga., Savannah—Syrup—Georgia Cane Syrup Co., capital \$25,000, organized by W. J. Walker, Sylvania, Ga.; Chas. G. Edwards, Savannah; plans erecting plant to mfre. and can cane syrup. (Lately noted W. J. Walker interested.)

Ky., Ashland—Ice ream—Imperial Ice Cream Co., W. M. B. Sine, Gen. Mgr., Clarksburg, W. Va., let contract to H. W. Cox, Ashland, to construct reinforced concrete and brick factory buildings; install machinery to mfre. ice cream; dally capacity 2,000-gals; storage capacity 12,000-gals; construct refrigerating plant; O. E. Cullums, Athens, Ohio, in charge of construction. (Lately noted bids opened for construction.)

Md., Baltimore—Butter, etc.—Maryland State Dairymen's Assn., D. G. Harry, Prest., 812 Fidelity Bidg., let contract to H. Egli, 425 Courtland St., at \$27,000, to erect 65x 45 ft. brick construction building; concrete floors; install cream separator, churn, pastuerizer, holding tanks, pumps, cold storage plant, costing from \$20,000 to \$25,000; mfre. butter, cheese, etc.; daily output 5,000 gals. milk. (See Machinery Wanted—Creamery Equipment; Tanks; Pumps; Cold Storage Plant.)

Md., Baltimore—Paper Board—Chesapeake Paper Board Co., J. S. Smith, Prest., Key Highway & Baltimore and Ohio R. R., will expend \$50,000 to install additional machinery; increase capacity from 50,000 to 100,000 lbs. paper board per hour; will erect power house addition.

Md., Baltimore—Clothing—Atlas Undergarment Co., 411 W. Baltimore St., capital \$50,00, incptd. by Harry J. and Anna J. Gold, and Aaron S. Applestein.

Md., Baltimore—Candy—La Mere Chocolate Co., Landback & Ziemer, Proprs., 548 W. Lee St., purchased 4-story 200x25 ft. brick warehouse; will improve to mfre. chocolates.

Md., Baltimore—Candy, etc.—Grace Chocolate Co., Munsey Bldg., capital \$100,000, inceptd. by Lee Rappaport, Jno. B. Marr and Lawrence J. Moller.

Md., Hagerstown—Ice Cream, etc.—Sine Ice Cream Co., Forest Drive and Charles St., capital \$500,000, incptd. by Wm. M. B. Sine, Harry E. Davisson and Stephen G. Jackson.

Mo., Carterville—Marble Facing—F. W. Wasserman, Joplin, Mo., plans establishing plant to mfre. marble facing on concrete.

Mo., Carterville—Shirts, etc.—Carterville Garment Factory will increase capacity; rent additional building for pressing, etc.; mfre. shirts, etc.

Mo., Columbia—Bottling—Electrified Water & Machine Co., Dallas, Tex., contemplates establishing \$50,000 bottling plant to purify water.

Mo., Sedalia—Milk Products—Weber Ice Cream Co., 413 S. Engineer Ave., Jefferson City, Mo., purchased Sedalia Milk Products Co.'s plant; will enlarge building.

Okla., Oklahoma City—Tailoring—United Tailoring Co., capital \$10,000. incptd. by T. M. Rison. Oscar Parker and H. J. McCrea.

Okla., Okmulgee—Glass—Interstate Glass Co., H. J. Walter, Prest., Bradford, Pa., will expend \$100,000 to extend and improve plant; construct new building; erect tank; install additional equipment.

Okla., Red Fork—Sunlight Carbon Co., 538 S. Victor St., Tulsa, Okla., plans installing machinery to mfre. dry-cell batteries; daily output 25,000; W. W. Kathan, Engr., 538 S. Victor St., Tulsa. Lately noted. (See Machinery Wanted—Can Making Output; Battery Material; Zinc; Terminals; Caps and Nuts.)

S. C., Darlington—Syrup—Darlington Syrup Mills, H. A. Humphries, Secy.-Mgr., will construct 95x65 ft. metal roof and sides building; cost \$3,000; install \$7,000 machinery for syrup and feeds; daily output 40-gals. syrup; 1 ton feeds per hour.

S. C., Greenville—Creamery—Greenville Agricultural Council, J. Rion McKissick, Prest., interested in establishing creamery.

S. C., Greenwood—Chamber of Commerce, E. W. Stalnaker, interested in establishing creamery.

Tenn., Chattanooga—Paper—Southern Cotton & Paper Co., Mercer Reynolds, interested, secured 2-acre site; will erect 1-story 160 x 60 ft. factory building; machinery purchased; will install to mfre. bond and blotting paper from cotton linters; daily capacity 15 tons.

Tenn., Chattanooga—Shoes—Southern Shoe Mfg. Co., 1609 Duncan Ave., organized with L. L. Gwin, Prest.-Mgr.; J. M. Alfer, Secy.; Taylor Durham, Treas.; establish plant to mfre. shoes; install machinery; daily output 25-doz. pairs. Lately noted incptd., capital \$50,000. (See Machinery Wanted—Shoe Machinery.)

Tenn., Knoxville—Trunks, etc.—Whittle Trunk & Bag Co., capital \$200,000, incptd. by J. M. Rule, H. E. Miller and J. A. Bacon.

Tenn., Nashville—Chemicals, etc.—American Essential Oils & Chemical Co., R. M. Dudley, increases capital; formerly American Extract & Vinegar Co.

Tenn., Wartrace—Creamery—Chas. Atkins, Pulaski, Tenn., plans establishing creamery.

Tenn., Watertown—Tannery — Williams Mfg. Co., will establish tannery; install sheep skin puller.

Tex., Beaumont—Paper—Chamber of Commerce, E. C. Bracken, Mgr., interested in establishing plant to mfre. wrapping paper, wall paper, etc., from timber waste,

Tex., Corpus Christi—Cream, etc.—Cloverdale Creamery Co., will occupy 2-story brick and concrete construction building, costing approximately \$25,000, to be erected by Cloverdale Ice Cream Co.; mfre. ice cream, butter and creamery by-products. (Previously noted.)

Tex., Dallas—Clothing, etc.—Benson Semans Co., increased capital from \$100,000 to

Tex., El Paso—Coffee—F. E. Warren Coffee Co., capital \$20,000, incptd. F. E. and J. F. Warren and C. C. Cooper.

Tex., Houston-Bags, etc.-National Bag

& Bagging Co., capital \$10,000, incptd. by A F., and G. D. Lackey.

Tex., Texarkana—Heels—Economy Heel Co., capital \$20,000, incptd. by W. T. Wiliams, G. H. Sewell and F. L. Struve,

Tex., Waco—Clothing—Bradbury Clothing Co., capital \$30,000, incptd. by W. T. Bradbury, Jr., G. B. Kirk and R. H. Hale.

W. Va., Fairmont—Rubber Stamps, etc.—Consolidated Typewriter & Rubber Stamp Co., capital _∠5,000, incptd. by H. W. Billeter, C. E. Sturm and J. A. Meredith.

W. Va., Huntington—Ice Cream—Imperial Ice Cream Co., W. M. B. Sine, An. Mgr., Clarkesburg, A. Va., let contract to C. W. McNulty, Huntington, to construct reinforced concrete and brick factory building; install machinery to mfre, ice cream; daily capacity 4,000-gals.; storage capacity 12,000-gals.; construct refrigerating plant; J. E. Cullums, Athens, Ohio, in charge of construction, later manager. (Lately noted bids opened for constructions

Motor Cars, Garages, Tires, Etc.

Ala., Birmingham—Garage—Alabama Garage Co., incptd. by O. H. Bowen and others.

Fla., Plant City—Garage—Ben Wills reported to erect 50x100-ft. 1 story brick garage, install filling and re-charging station.

Fla., Tampa—Automobile Accessories—Webster-Duval Machine Co., capital \$25,000, incptd. with P. D. Duval, Prest.-Treas.; John F. Webster, V.-P. and Gen. Mgr.; John B. Sutton, Secy.

La., New Orleans-Repairing-American Cotton Oil Co., will erect plant for car repairs.

La., New Orleans—Garages, etc—Chalmette Oil & Refining Co., Felix V. Vaccaro, Prest., will erect garage, distributing plant and storage tanks; estimated cost \$50,000; purchased site.

Md., Baltimore—Garage—Nash Motor Co., Maryland and Oliver Sts. will erect 3 story, concrete garage, terra cotta and brick front, steel trusses, gypsum slag roofing; sub-bids opened Nov. 9; general bids Nov. 10; Owens & Sisco, Archts., 1605 Continental Bidg.; M. A. Long Co., Engr., and Contrs., 1523 Munsey Bidg.

Md., Baltimore—Motors—Broadway Motor Car Co., 1624 E. Lombard St., capital \$10,-000, incptd. by John R. Thorne, William B. Smith and G. Everett Siebert.

Md., Baltimore—Filling Station—Lord Baltimore Filling Stations, 363 Calvert Bildg., incptd. by Wilson J. Carroll, Karl F. Steinmann and Sylvan Hayes Lauchheimer.

Md., Baltimore—Garage—Continental Garage & Service Corp. organized with J. Bacon Hyatt, Prest., will erect 5-story, reinforced concrete, freproof building, daylight plan, three entrances, build tramway for different floors, install electric lighting; capacity 500 individual garages; estimated cost \$400,000 including equipment; L. Lawson Wagner, Archt., Union Trust Bldg.

Md., Montgomery County—Motors—Montgomery County Motor Co., capital \$24,000, incptd. by John C. W. Jayne, David H. Taylor and James A. Purcell, all Washington D. C.

Mo., St. Joseph—Garage—Grant Motor Co., 9th. and Felix St. will erect 1 story 12x40-ft. garage has plans.

Mo., St. Louis—Garage—B. Gustavson, 15-38 Tower Grove will erect 1 story 41x175-ft. garage, estimated cost \$45,000; Wedmeyer & Nelson, Archts., Wainwright Bldg.

N. C., Charlotte—Automobile Accessories— Blaylock Auto Co., capital \$100,000, incptd. by B. H. Blaylock, E. r. Singley and O. O. Hawkins. y A

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N. C., Raleigh-Motors-Edgerton Touring Co., capital \$10,000, incptd. by M. T. Edgerton, L. B. Nichols and others.

S. C., Charleston-Battery Service-Philadelphia Battery Service Station, incptd. with

delphia Battery Service Station, incptd. with John J. Tecklenberg, Prest.-Treas.; S. E. Baker, V.-P. and Secy.
Tenn., Columbia—Battery Station—Electric Automotive Co., K. G. Howard, Prop. will occupy concrete and brick building, erected by Mrs. Fred Gamble.

Tenn., Columbia-Motors-Columbia Motor Bus Co., capital \$50,000, incptd. J. H. Carpenter, Jr., Meade Frierson and R. G. Sparrow.

Tex., Dallas-Motors-Tenison & Blair Co. J. R. Tenison, Prest. will occupy 3 story reinforced concrete building, 150 ft. front; erected by Ira P. DeLoache; Lang & Wit-

chell, Archts.

Tex., El Paso—Automobile Supplies-Red Ball Auto Supply Co., capital \$30,000, incutd. by H. H. Peabody, E. A. and A. M. Heffield.

Tex., Pharr-Service Station-Rio Grande Service Co., incptd. by Charles D. Turner, J. E. Rogers and Vernon B. Hill. W. Va., Bluefield—Garage, etc.—Bond Motor Co., plans erecting garage and sales

room, purchased site.

Railways.

Ark., Fort Smith-Arkansas Central Railway, 46 mi. long from Fort Smith to Paris, Ark., is to be reconstructed at an estimated cost of \$3,000,000, now that it is in Missouri Pacific System. M. J. Crotty, Van Buren. Ark., is Supt.

Md., Jennings-Northern Maryland & Tide water Railroad Co. will rebuild 14 mi. of line from a point 4 mi. out of Jennings to Worth, Pa., connecting with Baltimore & Ohio Railroad, and including three bridges 30 to 70 ft. loag. W. E. Ambrose, Gen. Mgr., Box 240, Cumberland, Md. R. J. Ross, Prest., Westernport, Md.

Tex., Dallas-Construction has begun on the Dallas and Terrell Interurban Electric Railway, to be 40 mi. long, by the Allhands & Davis Construction Co., of Kansas Cty. B. R. Brown is Engr. in charge.

Tex., Mexia-Eastern capitalists, represented by Wille & Hightower, attorneys, of Mexia, propose to build an electric railway to connect Mexia and Waco, about 40 mi.

Railway Shops, Terminals,

Mo., St. Louis-St. Louis & San Francisco R. R., F. G. Jonah, Ch. Engr., St. Louis, Mo. let contract for 1 story 40x130-ft. machine

Road and Street Construction.

Ala., Birmingham-Jefferson Coun v Board of Revenue let contract to Sam Wallace Construction Co., at \$19,690 to construct road from Leeds to county line.

Ala., Birmingham-Jefferson County let contract to J. F. Morgan Paving Co., at \$65,000 to repair present brick and bituminous paving; 60,000 sq. yds.; G. J. Rogers, County Highway Engr. (Supersedes recent

Ala., Camden-State Highway Comsn. of Alabama, Montgomery, Ala. will construct road between Catherine and Lamison; low bidder Finnell Co., Tuscaloosa, Ala., at \$52,-000. (Lately noted inviting bids.)

Ala., Mobile-State Highway Comsn. of Alabama, Montgomery, Ala. will construct road between Mobile and Chickasaw; 4.66 mi, bids until Nov. 29; W. S Keller, State Highway Engr., Montgomery. (See Machinery Wanted-Road Construction.)

Ark., Lonoke-Lonoke County Road Dist.

No. 9 sold \$25,000 road construction bonds.

Fla., Daytona-City will construct 123.-000 sq. yds. pavements; bidders as follows: Thompson & Owens, Tampa, Fla.; Geo. W. & J. E. Bryan, Jacksonville, Fla.; J. F. Morgan & Co., Birmingham, Ala.; Sutton & Carson, Ocean City, N. J.; White Construction Co., Chicago, Ill.; Atlantic Bithullithe Co., Richmond, Va.; Southern Clay Mfg. Co., Chattanooga, Tenn. (Previously noted inviting bids.)

MANUFACTURERS RECORD.

Fla., DeLand—State Road Dept., Talla-hassee, Fla. let contract to Luten Bridge Co., York, Pa., at \$26,219 for drainage construction work in Volusia County from DeLeon Springs to Putnam county line.

Fla., Fernandina-State Road Dept., Tallahassee, Fla. let contract to Clayton & Mitchell, Thomasville, Ga., at \$4,408.30 for drainage structures in Nassau County Pro-

Fla., Gainesville-State Road Dept., Tallahassee, Fla. let contract to Luten Bridge Co., York, Pa., at \$26,534.07 for drainage structures on Project 33, Road No. 2, 12½ mi.; Clayton & Mitchelll, Thomasville, Ga., at \$35,486.83 for drainage structures, Project No. 32; both Alachua County.

Fla. Green Cove Springs-Clay County let contract to Bryson Live Stock Co., Jacksonville, Fla. to construct roads; \$47,500 available. (Lately noted.)

Fla., Jacksonville-State Road Dept., Tallahassee, Fla. let contract to Clayton & Mitchell, Thomasville, Ga., at \$23,462.64 for drainage structures in Duval County Project No. 11.

Fla., Lake City-State Road Dept., Tallahassee, Fla. let road contract as follows: J. Y. Wilson, Jacksonville, Fla., at \$255,-033.80 to construct 10 mi. road east of Lake City on road No. 1; Clayton & Mitchell, Thomasville, Ga., at \$16,887.32 for drainage structures, Project No. 23, at \$3,597.10 for drainage structures, Project No. 24, at \$11,-835.50 for drainage structures; all in Columbia County. (Lately noted inviting bids.)

Fla., Macclenny-State Road Dept., Tallahassee, Fla. let contract to Clayton & Mitchell, Thomasville, Ga., at \$5,513.03 for drainage structures in Baker County, Project 22.

Fla., Palatka-State Road Dept., Tallahas-see, Fla. let contract to Florida Engineer & Construction Co., Oviedo, Fla., at \$19,789 .-40 for drainage construction work on Project No. 18, Putnam County; 12.8 mi,

Fla., Perry-State Road Dept., Tallahassee, Fla. plans constructing State Aid road No. 109 between Perry and Lafayette county line, Taylor County; \$10,000 available.

Fla., Tallahassee-State Road Dept., let contract to J. D. Donahoo, Perry, Fla., at 32,000 to excavate drainage canals of Chattahoochee river bridge.

Ky., Lexington-City will sell \$300,000 bonds for extending Vine St. and improving other streets. Address The Mayor.

La., Alexandria-City let contract to H. T. Clark to pave Johnston St., from Fourth to Tenth St., vertical fiber brick.

Ky., Hopkinsville-State Highway Comsn., Frankfort, Ky. let contract to M. E. Stone & Co., Madisonville, Ky., at \$81,095.96 to improve 7 mi, section of Cadiz-Hopkinsville road in Christian and Trigg Counties. (Lately noted inviting bids.)

Ky., Marion-State Highway Comsn., Frankfort, Ky. will construct 7 mi. Marion-Princeton road; Crittenden County; low bid-W. R. Campbell, Madisonville, Ky., at \$25,908.70. (Lately noted inviting bids.)

Ky., Paducah—State Highway Comsn., Frankfort, Ky. let contract to M. E. Stone & Co., Madisonville, Ky., at \$2,621.16 to im-

prove 2.4 mi. Louisville-Paducah road; State Project No. 8, Section A, McCracken County. (Lately noted inviting bids.)

Ky., Smithland-State Highway Comsn., Frankfort, Ky. let contract to Smithers, El-lis & Costello, Knoxville, Tenn., at \$58,730, 31 for grading and draining 12 mi, Louisville-Paducah road, Livingston County, (Lately noted inviting bids.)

Ky., Smithland-State Highway Comsn., Frankfort, Ky. will construct 4.1 mi. Smith-land-Eddyville road, Livingston County; low bidder Ping Bros., Somerset, Ky., at \$25,-846.07. (Lately noted inviting bids.)

La., New Iberia-Board of Trustees let contract to E. J. Deas, at \$29,161.40 for paving Center St. from Main to extreme limits of corporation where road is graveled.

La., Opelousa—Highway Dept. Board State Engrs., 332 Maison Blanche Annex, New Orleans, La. will construct 5.76 mi. Prairie-Ronde road, Road A; 4 mi. West Bellevue road, Road B; 2.94 mi. Daly-Lewisburg road, Road C; 3.57 mi. Shuteston-Church Point road, Road D and 11 mi Latwell-Port Barre road; St. Landry Parish; bids opened; Duncan Buie, State Highway Engr., New Orleans, La.

La., St. Joseph—Highway Dept. Board State Engrs., 332 Maison Blanche Annex, New Orleans, La. will construct 18.5 mi. St. Joseph-Sommerset highway, Tensas Parish; bids until Nov. 21; Duncan Buie, State Highway Engr., New Orleans. (See Machinery Wanted-Road Construction.)

Md., Frederick-City plans concrete curbs and gutters along both sides of West South St. from Market to Jefferson and along West Patrick St.; Emory C. Crum, City Engr.

Miss., Hazelhurst-Copiah County voted \$50,000 bonds for additional road work. Address County Commrs.

Mo., Chillicothe-State Highway Dept., Jefferson City, Mo. will construct 1.804 ml. State road from Chillicothe southward; cost \$50,052.64; Livingston County, State Aid Project 20;348 bids until Nov. 11; A. C. Singley, Div. Engr., St. Joseph, Mo. (See Machinery Wanted—Road Construction.)

Mo., Clayton-State Highway Dept., Jefferson City, Mo. will construct 7.03 mi. State road from St. Louis southward; cost \$283,-599.45; Federal Aid Project 80; also 6.07 mi. State road from Weber road westward; cost \$227.212.76; Federal Aid Project 78; both St. Louis County; H. D. Griffith, Div. Engr., DeSoto, Mo.

Mo., Columbia—State Highway Dept., Jefferson City, Mo. will construct 3.201 mi. State road south of Ashland; Boone County, State Aid Project 20.77; cost \$27,148.34; bids until Nov. 12; S. M. Rudder, Div. Engr., Sedalia, Mo. Lately noted. (See Machinery Wanted-Road Construction.)

Mo., Edina-State Highway Dept., Jefferson, Mo. let contract to Cameron-Joyce & Co., Keokuk, Iowa, at \$23,843.63 to construct 3.783 mi. State road from Edina north and south; Knox County, State Aid Project 20.106; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo. (Lately noted.)

Mo., Kansas City-Board Public Works let \$15,255.23 paving contracts as follows: W. C. Mullins Construction Co., at \$4,021.71 to construct plain concrete pavement on Chest-nut Ave. between 49th and 50th Sts.; at \$3,990.66 to construct plain concrete pavement on Euclid avenue; Troost Development Co., at \$2,024.49 to construct concrete gutter on Lydia Ave; Missouri Sidewalk Construction Co., to pave 17th St., between Woodland and Brooklyn Aves; A. H. Pittenger, to pave Walrond Ave, between 73rd and 74th Sts. etc.

Mo., Keytesville-State Highway Dept. Jef-

ferson City, Mo. let contract to T. L. Moss, Clayton, Mo., at \$22,043.90 to construct 1.75 mi. State road north of Keytesville; Chariton County, State Aid Project 20.59; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo. (Lately noted inviting blds.)

Mo., ...acon—State Highway Dept., Jefferson City, Mo. let contract to Cooper's Construction Service Co., St. Louis, Mo., at \$21,-812.94 to construct 2.657 ml. State road west of Macon; Macon County, State Aid Project 2055. M. J. Hanick, Div. Engr., Howe Bidg., Macon. (Lately noted inviting bids.)

Mo., Marshfield—State Highway Dept., Jefferson City, Mo. will construct 7.733 mi. State road from Rogersville eastward; cost \$25,631.08; Webster County, State Aid Project 20.112; H. P. Moberly, Div. Engr., Woodruff Bldg., Springfield, Mo.

Mo, Maysville—Stateville Highway Dept., Jefferson City, Mo., will construct 3.185 mi. State road from Clarksdale southwestward-ly; cost \$27,601.03; DeKalb County, State Aid Project -J.o..; bids until Nov. 10; A. C. Singley, Div. Engr., St. Joseph, Mo. (See Construction News—Road and Street Construction)

Mo., Mexico—State Highway Dept., Jefferson City, Mo., will construct 7.247 mi. State road from Mexico eastward and westward; cost \$23,233.76; Audrain County, State Aid Project 20.95; M. J. Hanick, Div. Engr., Howe Bildg., Macon, Mo.

Mo., New London—State Highway Dept., Jewerson City, Mo., will construct 2.330 mi. State road from Perry westwardly; cost \$9.424.81; Ralls County, State Aid Project 20.102; bids until Nov. 11; M. H. Hanick, Div. Engr., Howe Bidg., Macon Mo. (See Machinery Wanted—Road Construction.)

Mo., Ozark—State Highway Dept., Jefferson City, Mo., will construct 5.303 mi. State road from Ozark eastward; cost \$19,779.05; Christian County, State Aid Project 20.116; H. P. Moberly, Div. Engr., Woodruff Bldg., Springfield, Mo.

Mo., Perryville—State Highway Dept., Jefferson City, Mo., will construct 1.403 mi. State road from Perryville to Claryville; cost \$43,-397.93; bids until Nov. 10; M. S. Murray, Div. Engr., Sikeston, Mo. (See Machinery Wanted—Road Construction.)

Mo., Princeton—State Highway Dept., Jefferson City, Mo. let contract to Mike Hasse, Kansas City, Mo., at \$29,048.01 to construct 3.63 ml. State road from Princeton southwardly; Mercer County, State Aid Project 20.79; A. C. Singley, Div. Engr., St. Joseph, (Lately noted.)

Mo., Warrenton—State Highway Dept., Jefferson City, Mo. will construct 2.14 mi. State road from west of Warrenton; cost \$25,756. 78; Warren County, State Aid Project 20.68; bids until Nov. 15; H. D. Griffith, Div. Engr., DeSoto, Mo. (See—Machinery Wanted—Road Construction.)

Mo., Warsaw—State Highway Dept., Jefferson City, Mo. will construct 3.273 mi. State road from Dill southeastwardly; Benton County, State Aid Project 20.90; bids opened Nov. 5; S. M. Rudder, Div. Engr., Sedalia, Mo.

Mo., West Plains—Howell County, Ward Ellis, Clk. will grade roads and construct concrete culverts; 150 ml; cost \$100,000; E. R. Axon, Engr. in charge. (Lately noted.) (See Machinery Wanted—Road Building Material; Culverts.)

N. C., Bayboro—North Carolina State Highway Comsn, Raleigh, N. C. let contract to Union Paving Co., Philadelphia, Pa., at \$263,022 to construct 12.03 ml. roadway in Pamlico County from Craven county line to Bayboro. (Lately noted inviting bids.)

N. C., Gibsonville—Town let contract to W. P. Pollard, Asheville, N. C., to construct 9,000 sq. yds. concrete sidewalks; Carolina Engineering Co., Engr., Wilmington, N. C. (Lately noted inviting bids.)

N. C., Goldsboro—North Carolna State Highway Comsn., Raleigh, N. C. let contract to Union Paving Co., Philadelphia, Pa., at \$268,357.80 to construct 10.01 ml. roadway in Wayne County from Goldsboro to Lenoir county line; at \$15,247 for structures. (Lately noted inviting bids.)

N. C., Graham—North Carolina State Highway Comsn., Raleigh, N. C. will construct 5.22 mi. State highway between Federal Aid Project 22-B and Orange county line on Route 10; State Project 504, 10.89 mi. State highway between Trollingswood and Caswell county line on Route 62; both Alamance County; bids until Nov. 18, Lately noted. (See Machinery Wanted—Road Construction.)

N. C., Greensboro—North Carolna State Highway Comsn., Raleigh, N. C. will construct 11.70 mi. State highway in Guilford County between end of Federal Aid Project 47 and Alamance County line route 10, State Project 532; bids until Nov. 18, Lately noted (See Machinery Wanted—Road Construction.)

N. C., Lexington—North Carolina State Highway Comsn., Raleigh, N. C. will construct 10.24 mi. State highway in Davidson County between Lexington and Rowan county line on Route 10; State Project 525; bids until Nov. 18. Lately noted. (See Machinery Wanted—Road Construction.)

N. C., Littleton-Town voted \$25,000 bonds for constructing sidewalks, curbs and gutters, Address The Mayor.

N. C., New Bern—North Carolina State Highway Comsn., Raleigh, N. C. let contract to Union Paving Co., Philadelphia, Pa. at \$246,068.60 to construct 9.93 ml. roadway in Craven County from New Bern toward Morehead City; at \$16,609.60 for structures. (Lately noted inviting bids.)

N. C., Rocky Mount—State Highway Comsn., Raleigh, N. C. will let contract in December for highway construction project from Rocky Mount to Pitt county line via Tarboro.

N. C., Snow Hill—North Carolina State Highway Comsn., Raleigh, N. C. let contract to West Construction Co., Kinston, N. C., at \$196,446 to construct 6.81 ml. roadway in Greene County from Snow Hill to Lenoir county line; Union Paving Co., Philadelphia, Pa., were low bidders on structures at \$20,620. (Lately noted inviting bids.)

N. C., Swanquarter—North Carolina State Highway Comsn., Raleigh, N. C. let contract to Porter & Peck, Greenville, N. C. for drainage structues on Project 564, Hyde County.

N. C., Trenton—North Carolina State Highway Comsn., Raleigh, N. C. will construct 15. 76 mi. 9-ft. road in Jones County from Trenton via Pollocksville to Craven county line; low bidder on roadway, Union Paving Co., Philadelphia, Pa., at \$292,635.20; and structures at \$16,493.70. (Lately noted inviting bids.)

N. C., Wilmington—Commr. Public Works will construct 90,000 sq. yds. sheet asphalt, asphaltic concrete, bitulithic, Kentucky rock brick or concrete pavement with storm sewers; bids until Nov. 29; R. C. Cantwell, Commr. Public Works; Carolina Engineering Co., Engr. (See Machinery Wanted—Paving.)

N. C., Wilmington—City will pave streets; bids until Nov. 29; Carolina Engineering Co., Engr. (Lately noted.)

N. C., Yanceyville—North Carolina State Highway Comsn., Raleigh, N. C. will construct 14.85 ml. State highway in Caswell County between Yanceyville and Alamance county line on Route 62; 39,999 cu. yds. topsoil, sand-clay or gravel surfacing; bids until Nov. 18. Lately noted. (See Machinery Wanted-Road Construction)

Okla., Ada—City, W. B. Jones, Clk. let contract to I. E. Hanson, to pave streets; Benham & Mullergren, Engrs, Firestone Bldg, Kansas City, Mo. (Lately noted inviting blds.)

Okla., Bartlesville—City Commrs. will pave streets and alleys; including Seventh, First. Eighth, Ninth and other streets; cost \$100, 000.

Okla., Chickasha—City will pave 17th St.; cost \$100,000; John C. Millikin, Engr.

Okla., Kingfisher—State Highway Dept., Oklahoma City, Okla. will construct road in Kingfisher County, Project 25; 143,000 lbs. reinforcing steel; bids opened Nov.1 B. E. Clark. Commr. Highways.

Okla., Madill—State Highway Dept., Oklahoma City, Okla., will construct road in Marshall County; bids opened Nov. 1; B. E.

Okla., Marietta— City, Claywood Glazener, Clk., will construct 25,100 sq. yds. street paving; 16,200 lin. ft. curb; etc; bids until Nov. 17; Henry Exall Elrod Co., Engr., Dailas, Tex., (See Machinery Wanted—Paving.)

Okla., Tulsa—Tulsa County will vote on \$50,000 bonds to complete section of White river trafi from Tulsa county line to bridge spanning Verdigris river. Address County Commrs.

Okla., Woodward—State Highway Dept., Oklahoma City, Okla., will construct road in Woodward County; Project 28; bids opened Nov.1; B. E. Clark, Commr Highwaye.

S. C., Barnwell—Barnwell County let contract to White & Simpson, Chatham, Va., to construct 9 mi. sand-clay road; cost \$25,000; J. W. King, Engr., Barnwell. (See Machinery Wanted—Road Materials; Scrap-

S. C., Beaufort—Beaufort County, Wm. J. Thomas, Chrmn. Highway Comsn. let concontract for J. T. Blassingame, Greenville, S. C., at \$84,295.31 for grading and foundation work on 20.781 ml. Beaufort to Pocotaligo highway; will invite new bids for surfacing. (Lately noted inviting bids.)

S. C., Darlington—City, J. A. McCleod, Mayor sold \$75,000 bonds for street improvements.

S. C., Charleston—Charleston County will vote Nov. 22 on \$400,000 bonds to construct roads and bridges; Wm. P. Cantwell, County Supyr.

Tenn., Clarksville—Montgomery County will sell \$75,000 bonds for highway construction; John T. Cunningham, County Judge.

Tenn., Knoxville—City, Mayor Neal let contract to Murray Construction Co, at \$90,000 to pave Cumberland Ave. from State to Gay St., also other streets.

Tenn., Memphis-City will widen and pave streets cost \$2,100,000; Wm. B. Fowler, City Engr. (Supersedes recent item.)

Tenn., Nashville—Board of Public Works plans paving 10 mi. streets, W. W. Southgate, City Engr.

Tenn., Paris-Henry County will sell

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\$150,000 highway construction bonds; W. I. Dade, Clk, Court,

Tex., Bay City-Matagorda County will construct 7.29 mi. shell road; cost \$50,000; bids opened Nov. 8; J. C. Carrington, County Engr; J. F. Perry, County Judge, Lately neted. (See Machinery Wanted-Shell.)

Tex., Boston-U. S. Dist. Engr., Fort Worth, Tex. approved plans for construction of 12.3 mi. 12-ft. gravel road on Highway No. 1 and 8 in Bowie County; cost \$165,000; O. B. Pirkey, County Judge, New Boston; Hess & Skinner, County Engr., S. W. Life Bldg., Dallas, Tex.

Tex., Breckenridge-Stephens County will construct 31 mi. bituminous macadam road on Highway No. 1; will invite bids; Nagle, Witt-Rollins Engineering Co., Engr. (See Machinery Wanted-Road Construction.)

Tex., Brownsville-City will pave streets; \$250,000; bids in Feb. 1922; J. O. Spencer, City Engr.; Geo. Grupe, City Mgr. Lately noted. (See Machinery Wanted—Paving.)

Tex., Coleman-Coleman county will construct 22.5 mi, 16-ft. gravel road on Highway No. 23 from Coleman to Callahan County line; cost \$300,000; L. G. Matthews, County Judge.

Tex., Cuero-Dewitt County plans construction of 11.04 mi. gravel surfaced road on Middlebuster highway from Cuero to Thomaston; cost \$71,000; J. L. Boal, County Judge; J. G. Irby, State Resident Engr.

Tex., Dallas-Dallas County sold \$2,700,-000 bonds for road constructon; construc-tion bids in December. Chas. E. Gross. County Auditor.

Tex., Denison-City let contract to Healey Construction Co., 308 Sumter Bldg., Dallas, Tex., to construct 11,000 sq. yds, asphaltic concrete pavement on gravel base; W. F. Weaver, Mayor; J. C Lipscomb, City Engr. (Lately noted inviting bids.)

Tex., Denton-Denton County will construct 10.3 mi. bituminous top road on Highway No. 40, Job 61-A, F. A. Project 117; also 8.54 mi. Highway 24; gravel reinforcing; Job 61-E, State Aid Project 240; bids opened Nov. 3; W. E. Durbin, County Auditor.

Tex., El Paso—El Paso County will construct 15 mi. Highway No. 33; E. B. Mc-Clintock, County Judge; L. A. White, County Engr.

Tex., Fort Worth-Tarrant County will construct drainage structures on 8.84 mi. Kennedale to Dallas cardinal road; bids opened Nov. 7; W. E. Yancy, County Auditor.

Tex., Fort Worth-State Highway Dept., Austin, Tex. approved plans for surfacing 6.84 ml. Highway No. 1 from Parker county line east with bituminous topping; cost \$137,000; Hugh L. Small, County Judge; R. V. Glenn, Conslt. Engr.

Tex., Greenville-Hunt County will construct 9.66 mi. 16-ft. gravel bituminous road on Highway No. 1; will let contract; A. D. Duck, County Engr. (See Machinery Wanted-Road Construction.)

Tex., Greenville-City sold \$75,000 bonds for street improvements. Address The Mayor.

Tex., Henderson-U. S. Dist. Engr, Fort Worth, Tex. approved plans for construction of 8 mi, Highway No. 26 and 43 in Rusk County; cost \$107,550.80; Hess & Skinner, County Engrs, S. W. Life Bldg, Dallas, Tex.

Tex., Kerrville-Kerr County will construct 31.8 ml. Highway No. 27; surface with gravel and crushed rock; will invite bids; Lee Wallace, County Judge; W. E. Simpson, County Engr, San Antonio, Tex.

7.3 mi. 16-ft. gravel road on Highway 3-B li: Fayette County; cost \$120,000; J. P. Ehlinger, County Judge.

Tex., Livingston-Polk County let contract to S. T. Stamford, Kickapoo, Tex. to grade 9.7 mi. Highway No. 35; cost \$14,000. Supersedes recent item. (See Machinery Wanted-Graders : Scrapers.)

Tex., Marshall-Harrison County will improve 19.03 mi. Marshall-Longview, 2.15 mi. Marshall-Shreveport roads; 6 in. compacted gravel base, 2 in. compacted crushed stone with bituminous surface treatment 16-ft, wide; bids until Nov. 14; W. H. Strength, County Judge. (See Machinery Wanted— Road Construction.)

Tex., Port Arthur—City voted \$232,873 bonds for paving streets. Address The

Tex., Quitman-Wood County has contract to surface 4 ml. Highway No. 42 in Wood County; 4,739.5 cu. yds. gravel; John E. Blair, County Engr., Mineola, Tex.; B. F. Cathey, County Judge, Quitman, Tex. (Lately noted.)

Tex., San Angelo-City may vote on \$150,-000 bonds for paving streets. Address The

Tex., Sierra Blanca-Hudspeth County plans onstruction of 6 mi, section of Bankhead highway; gravel surfacing cost \$43,500; also additional 3.2 mi, section of Highway No. 1; cost \$10,000; P. A. Hazzard, County Judge. Herbert Schroeter, County Engr.

Tex., San Marcos-Hays County will construct 13.92 mi. Highway 29-A, Section B, laso 2.79 mi, Highway 29-A; both State Aid Project 243, Job 106-C; bids until Nov. 12; J. R. Wilhelm, County Judge; J. W. Puckett, County Engr., Buda, Tex. (See Machinery Wanted—Road Construction.)

Tex., Uvalde-City voted to issue \$50,000 warrants for street paving; J. J. Wainwright, Mayor; Roy Benson, City Engr. (Lately noted.)

Tex., Waco-McLennan County will construct 5 mi, bituminous macadam road on Highway No. 6, Dallas road between Waco and Hill county line; J. P. Lester, County Judge; Mantan Hannah, County Engr.

Va., Pearisburg-Virginia State Highway Comsn., 116 S. Third St., Richmond, Va. will construct 6.19 mi. waterbound macadam road with alternate bid on bituminous macadam on State Road No. 23 between Ripplemead and Hoge's store in Giles County; Va. Project No. 128-A; bids until Nov. 15. (See Machinery Wanted-Road Construction.)

Va., Roanoke-City plans improving Ninth St., S. E., between Highland Ave. and Virginian Railway improved; cost \$24,500. Address City Mgr. Hunter.

W. Va., Huntington-City will pave Collins Ave. and 24th St.; bids until Nov. 12; Mat Miser, Commr. Streets and Sewers; A. P. Maupin, City Engr. (See Machinery Wanted-Paving.)

Sewer Construction.

Fla., St. Augustine-City, Eugene Masters, City Mgr., will expend about \$8,000 to construct sewer in Dist. No. 9; terra-cotta pipe; later construct sewer in Dist. No. 1; G. T. Butler, Engr. (Lately noted.)

No. 3; vote Nov. 8 on \$600,000 bonds; Alvord & Burdick, Engrs., Chicago, Ill. (Lately noted.)

La., Baton Rouge-City, Mayor Grouchy, will construct 600 ft. 8-in. sewer line and manhole in St. Ferdinand St. from Boulevard to Railroad Ave.; bids opened Nov. 8; A. G. Mundinger, City Engr. Lately noted. (See Machinery Wanted-Sewers.)

Mo., Carthage-City will construct sewer in Dist. No. 39; F. B. Newton, City Engr.; invites bids.

Mo., Columbia-City will extend sewer sys tem and sewer treatment plant; construct 4 mi. 8-in. piping, costing approximately \$30,000; \$10,000 disposal plant; Imhoff tanks and sprinkling filters; bids about Dec. 1; E. J. McCaustland, Engr., 103 Engineering Bldg. Lately noted, (See Machinery Wanted-Sew-

N. C., Asheville-City, P. H. Shoepf, Pur. Agt., let contract to Kelly & Wilson, at \$3,-320, to construct sewer system; 2,400 ft. 10-

in.terra cotta pipe and 300 ft. 8-in. pipe; 8 manholes; B. M. Lee, City Engr.; (Lately noted bids opened); later will construct 30,000 ft. 6 to 15-in. pipe sewer; probably bids invited this winter.

N. C., Asheville-City, P. H. Shoepf, Pur-Agt., will construct 6-in, sanitary sewer in Louisiana Ave.; B. M. Lee, City Engr. (Lately noted contemplated.)

N. C., Enfield-City will expend \$190,000 to construct sewerage, water and electric light-fng systems; Wm. C. Olsen, Conslt. Engr., Kinston, N. C.

N. C., Littleton-Town, McM. Furgurson, Mayor, will construct sewer system; voted \$50,000 bonds.

N. C., Wilmington-City, R. C. Cantwell, Commr. Public Works, will construct storm sewers and appurtenances; bids until Nov. 29; Carolina Engineering Co., Engr., 412 Southern Bldg. (See Machinery Wanted-Sewers.)

Okla., Chickasha-City will extend sewer and water systems; voted \$50,000 bonds; Jno. C. Milliken, City Engr. (Lately noted to

Okla., Marlow-City plans expending \$20,-000 to extend sewer system; V. V. Long & Co., Conslt. Engrs., 1300 Colcord Bldg., Oklahoma City.

Okla., Oklahoma-City will improve storm sewers; vote Nov. 26 on \$1,600,000 bonds; B. M. Hart, City Engr. (Lately noted plans voting Oct. 15.)

Okla., Pawnee-City let contract to N. S. Sherman, Oklahoma City, to extend sewer system. (Lately noted.)

S. C., Greenville-City contemplates enlarging sewer system; plans voting on \$100,-000 bonds. Mayor Harvley.

Tenn., Bristol-City Commrs. plan extending sewer system.

Tenn., Memphis-City, Rowlett Paine, Mayor, let contract to Moreno-Burkham Construction Co., St. Louis, Mo., at \$56,815, to construct Binghampton sanitary sewer outlet main; C. C. Pashby, Clk. (Lately noted bids until Oct. 18.)

Tex., Brownsville-City, Geo. Grupe, City Mgr., will construct sewerage disposal plant; voted \$75,000 bonds; bids until Feb. 1922; J. O. Spencer, City Engr. Lately noted to vote. (See Machinery Wanted-Sewers.)

Tex., Port Arthur-City, E. R. Thomas, Clk., will extend sewer system; voted \$63,-559 bonds. (Lately noted to vote.)

Fingr, San Antonio, Tex.

Tex., La Grange—State Highway Dept, Austin, Tex., approved plans for construction of install laterals and drains in Sewer Dist.

Ky., Paducah—City, F. W. Katterjohn, Mayor, will construct trunk line sewers; install laterals and drains in Sewer Dist.

W. Va., Morgantown—City will install sewer system; contemplates voting on bonds; install laterals and drains in Sewer Dist.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

W. Va., Wheeling—City will extend sewer system; construct 560 ft. reinforced concrete pipe sewer; manhole and culvert entrance; bids until Nov. 12; H. A. Conrad, City Engr. (See Machinery Wanted—Sewers.)

Street Railways.

Md., Cumberland—Thomas B. Finan, of Cumberland, acting for himself and Townsend Scott & Son, of Baltimore, bankers, has purchased the Cumberland Electric Railway Company's stock, and extensions and improvements are contemplated. (Edison Electric Illuminating Co. also purchased.)

Telephone Systems.

Ky., Mannsville—Taylor County Telephone Co., increased capital from \$10,000 to \$25,000.

N. C., Raleigh—Southern Bell Telephone & Telegraph Co., Atlanta, Ga., G. C. Cauthern, Dist. Mgr. will expend \$51,404.02 on improving telephone service, install additional office facilities including switchboard and distributing frame, enlarge power and storarge battery plant; purchased additional building.

Tenn., Bradford—Bradford Home Telephone, J. A. Fisher, Mgr., (lately noted burned) acquired building, will install switchboard, purchased. (See Machinery Wanted—Telephone Supplies.)

Tex., El Paso—Western Union Telegraph Co., 195 Broadway, New York plans expending \$75,000 on enlarging local office, installing number of multiplex apparatus, copper lines, etc., increasing plant facilities; W. P. Moss, valuation inspector.

Textile Mills.

N. C., Norwood-Hosiery Yarns-Norwood Mfg. Co., J. F. Shinn, Sec'y.-Mgr., contemplates installing additional combing machinery.

S. C., Greenville—Yarns—Jenkins Mills, G. H. Scriggs, Secy., increased capital from \$25,000 to \$50,000. (Lately noted.)

Tex., Corpus Christi—Thomas Bell and Fred Roberts interested in establishing textile milt.

Water Works.

Ala., Troy—City will extend and repair water-works; voted \$25,000 bonds. Address The Mayor. (Lately noted to vote.)

Ga., Metter-City will enlarge water and electric light plant. Address The Mayor.

Ky., Ashland-City, H. R. Dysard, Mayor, will expend \$100,000 to improve waterworks; let contract to Ellington Miller Co., Chicago, Ill., for 2,500,000-gal capacity filtration plant, 600,000-gal. capacity reservoir, and roof over present reservoir; to International Filter Co., Chicago, Ill., for filtration plant equipment: Hamder Boiler & Tank Co., Chicago, for steel wash water tank for filtration plant; Hord Construction Co., Huntington, W. Va., to lay 12-in. main from new reservoir to 14th St. and Greenup Ave.; American Cast Iron Pipe Co., Birmingham, Ala., for cast iron pipe and fit-ings; Ludlow Valve Mfg. Co., for valves; Dravo-Doyle Co., Diamond Bank Pittsburgh, Pa., for motor driven centrifugal pumps; Alvord & Burdick, Engrs., Hartford Bldg., Chicago; L. R. Howson, of Alvord & Burdick, Consit. Engr. (Lately noted bids opened.)

Mo., Burlington Junction—City will intsall water-works; may vote on \$39,000 bonds. Address The Mayor. (Previously noted.) N. C., Enfield—City will expend \$190,000 to construct water, electric lighting and sewerage systems; Wm. C. Olsen, Conslt. Engr., Kinston, N. C.

N. C., Greensboro-City, P. C. Painter, City Mgr., will expend \$300,000 to extend waterworks; construct dam and filter plant; extend mains. (Lately noted to issue bonds.)

N. C., Littleton— Town, McM. Furgurson, Mayor, will construct water mains; voted \$50,000 bonds.

N. C., Wendell-City will issue \$12,000 water-works bonds; W. A. Brame, Mayor.

Okla., Chickasha—City will extend water and sewer systems; voted \$50,000 bonds; Jno. C. Milliken, City Engr. (City noted to vote.)

Okla., Braggs-City, J. A. Kilpatrick, Mayor, will expend \$7,000 to \$10,000 to extend water-works; install pump and engine costing \$2,000; construct 90,000-gal, capacity reservoir; plan laying 1500 ft. 4-in. main extension; Green Engineering Co., Engr., Oklahoma City. (Lately noted voted bonds.)

Okla., Marlow-City plans expending \$60, 000 to extend water-works; V. V. Long & Co., Conslt. Engr., 1300 Colcord Bldg., Oklahoma City. (Lately noted.)

Okla., Oklahoma City—City will improve water-works; vote Nov. 26 on \$1,600,000 bonds; B. M. Hart, City Engr. (Lately noted plans voting Oct. 15.)

Okla., Pawhuska—City, W. I. Broaddus, Clk., let contract to C. D. Price Contracting Co., Kansas City, Mo., to improve waterworks; install pumping station, reservoir and mains; H. G. Olmstead & Co., Engrs., Tradesman Bank Bidg., Oklahoma City. (Lately noted bids until Oct. 27.)

Okla., Tulsa—City Comsn. plans improving Spavinaw water supply project; will construct 50-ft. dam on Spavinaw Creek; 55-mi. conduit furnishing daily maximum supply of 25,000,000-gals. to connect water by gravity to point 5 mi. from city; erect high pressure distribution pumping station to lift water 300 ft. to high pressure distribution reservoir; construct Tiawah Tunnel; J. D. Trammell, Consit. Engr., Fort Worth, Tex., and W. R. Holway, Prest. Holway Engineering Co., 332 Atco Bldg., Tulsa; vote Nov. 29 on \$6,800,000 bonds. (Lately noted.)

S. C., Greenville—City contemplates enlarging water-works; plans voting on \$30,000 bonds; Mayor Harvley.

S. C., Pickens—City is expending \$55,000 to install water-works; construct 500,000-gal. capacity sediment basin; erect 100,000-gal. capacity tank, Address the Mayor.

Tenn., Memphis— City, Rowlett Paine, Mayor, plans improving and extending waterworks; Geo. W. Fuller, Consit. Engr., New York.

Tex., Cleburne—City Water Comsn., Supt. Hockaday, will improve water-works; plans impounding Brazos River for permanent water supply; Burns & McDonnell, Engrs., Kansas City, Mo.

Tex., Corpus Christi-City will lay 6-in. mains, and install fire hydrants in Nucces

Bay Heights, Address the Mayor.

Tex., Currie-P. O. Wortham-City is installing water-works, Address The Mayor.

Tex., Edinburg—City, A. J. Ross, Mayor, let contract to Gulf Machinery and Ship Supply Co., Galveston, Tex., to construct water-works and electric power plant; H. E. Wilcox, City Engr. (Lately noted bids opened.)

Tex., Gatesville-City will construct waterworks, or purchase and extend present sys-

tem; voted \$42,500 bonds, Address The Mayor, (Lately noted to vote.)

Tex., Marlin-City will install water-works; construct reservoir, standpipe and mains. L. Goodrich, City Engr. (Lately noted voted bonds)

Tex., New Braunfels—City will extend water-works; construct 1,000,000-gal. capacity stand pipe; bids until Nov. 10; Chas. Alves, Mayor; M. L. Diver, Engr., Bedel Bldg., San Antonio, Tex. Lately noted. (See Machinery Wanted—Water-works.)

Tex., Port Arthur—City, E. R. Thomas, Clk., will extend water mains; voted \$123,-791 bonds. (Lately noted to vote.)

Va., Hopewell—Industrial Service Corp. of Va., J. F. Muhlig, Gen. Mgr., purchased from Du Pont Chemical Co. 30,000,000-gal. daily capacity water-works, including electric and steam pumping stations, filtration plant, boiler plant, transmission lines, etc.; will operate.

Va., Quantico—Bureau of Yards and Docks, Navy Dept., Washington, D. C., will construct water mains; low bidder; Pittsburgh-Des Moines Steel Co., Munsey Bldg., Washington.

W. Va., Williamson-City contemplates installing new water-works; Hill & Ferguson, Constt. Engrs.

Woodworking Plants.

Fla., Sanford—Crates, etc.—Universal Folding Crate Co., capital \$25,000, incptd. with Philip Simmons, Prest. John E. Wade, Secy. Treas.

Fire Damage.

Ala., Florala-Henderson's garage, North 5th. St.; loss not estimated.

Ark., Gillet-Joseph McGuire & Sons' saw mill.

Ark., Prairie Grove—Prairie Grove Thearer; Stephens' Confectionery; Jno. Carl's store; Palace Confectionery; Cole-Bell Mercantile Co's building; loss \$50,000.

Ark., Prescott—Dio Lewis and J. M. Kinser's residences on E. Main St.; loss \$10,000. Ark., Russellville—Commercial Hotel owned by Charley Perkinson.

Fla., Fort Myers-Southern Utilities Co's plant.

Fla., Jacksonville—Antonio Martinez Clgar Mfg. Co.'s factory; loss between \$75,000 and \$100,000.

Fla., Tampa—Pierce Electric Co.'s garage on Parker St.; loss \$18,000.

Ga., Atlanta-Capt. W. T. Smith's residence at 37 Cleburn Ave.

Ga., Atlanta—Travelers' Rest Baptist Church on Flat Shoals Ave. Address The Pastor.

Ga., Savannah-Walker Lumber & Timber Co.'s planing mill, drying sheds, etc.; loss \$65.000.

Ga., Tennille-Dr. L. V. Rhodes and Miss Florrie Davis' residences; loss \$8,000 to \$10,000.

Ky., Austerlitz—Louisville & Nashville R. R.'s depot; W. H. Courtenay, Ch. Engr., Louisville.

Ky., Henderson-Miller & Board's Tobacco warehouse.

La., Lake Charles—R. W. Wisdom's residence at Orange and Center Sts., Hi-Mount.

La., New Orleans—New Orleans Country Club on Metairie Rd.; loss \$250,000.

Md., Baltimore—Baltimore Brick Co.'s plant, Highland Ave. and Monument &t.; loss \$100,000.

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Md., Baltimore & Ohio R. R.'s shed at city storage yard, Oak St. and Ware Alley.

Md., Gaithersburg-Thomas & Co's ware-

Mo., Malden-J. R. Wilson's sweet potato drving and storage warehouse.

N. C., Hickory-L. W. Poovey's dairy plant; loss \$8,000.

N. C., Franklinton-C. S. William's store. N. C., Mt. Pleasant-Mt. Pleasant Lumber

Co.'s plant: loss \$20,000.

N. C., Wilmington-A. Livingstone's store. N. C., Wake Forest-Dr. S. P. Holding's garage, 2 barns and seed house.

Okla., Durant-First Methodist Church; loss \$40,000. Address The Pastor.

Okla., Wyandotte—Seymour Drug Co.'s store; Baptist Church (address The Pastor); Odd Fellows Hall; city hall (address The Mayor); loss \$30,000 to \$40,000.

S. C., Abbeville-E. R. Thompson's residence.

S. C., Aiken-Town jail and other building; loss \$25,000. Address The Mayor.

S. C., Chester-Tom B. Wright's cotton ginmery; loss \$10,000.

S. C., Givhans (R. D. from Ridgeville)-Givhans Cotton Warehouse Co.'s building; B. C. Hutto, Mgr.

S. C., Greenwood-Virginia Apartments on Calhoun Ave., owned by A. J. Snead

S. C., Hagood-T. B. Wright's ginnery; loss \$25,000.

S. C., McClellanville-Henry Morrison's

S. C., Walhalla-H. H. Harrison's cotton ginnery; loss \$15,000 to \$20,000.

Tenn., Columbia-W. D. Stockards's store, residence, barn and blacksmith shop at McKay St. and Pulaski Pike.

Tenn., Cornersville-Mrs. John A. Jackson's residence

Tenn., Lebanon-Owen McClain's residence on Nashville Pike.

Tenn., Sewance-Bishop A. W. Knight's

Tex., Carbon-Eastland County ginnery; loss \$25,000; owned by W. W. Gibert and others.

Tex., Dallas-Pearlstone Mill & Elevator Co.'s plant; loss \$75,000.

Tex., Galveston-Galveston Warehouse Co.'s building owned by Cotton Oil Industrial Co., New York

Tex., Granger-Hardin & Copeland's cotton ginnery, 6 ml. east of Granger; loss000.

Tex., Hubbard-Pierce Oil Corp's oil tanks and stock houses.

Tex., Mexia-Munger Oil & Cotton Co's cctton ginnery; loss several thousand dollars,

Tex., Mexia-S. P. Knox's residence and garage on McKinney St.; loss \$15,000.

Tex., Rockwood-Hart Drug Store Kenedy & Co's building.

Tex., Spofford-Hobbs & Co.'s warehouse.

Tex., Sweetwater-Sweetwater High School; loss \$125,000. Address Board of Education. Tex., Temple-R. M. Harris's cotton ginnery, 8 mi. east of city; loss \$7,000.

Tex., Thorndale-Steve Nieger's residence nr. Thorndale; loss \$8,000.

Tex., Victoria-Mrs. Jack H. McCabe's warehouse.

Tex., Waco-Cooper Mfg. Co.'s plant. J. B. Cooper Propr., 916 S. 9th St.; loss \$10,000. Tex., Whitewright-Farmer's Union Gin

Co.'s ginnery and boiler room; loss \$15,000. Va., Charlottesville-J. B. Moon's & build-

ings, silo and 5 barns at Dunlora farm. Va., Harrisonburg-Southern R. R. and Baltimore & Ohio R. R's roundhouse loss \$15,000 to \$20,000.

Va., Fredericksburg- R. Hugh 'Blaydes'

Va., Petersburg-Petersburg Sand and Gravel Co.'s plant; loss \$8,000.

Va., Weyers Cave-Farmers' Milling Co.'s plant, R. F. Leavel, Mgr.; loss \$65,000.

Va., Wytheville-Geo. Simmerman's ware-

W. Va., Gassaway-Henry Martin's store and residence.

Damaged by Storm.

Fla., Bayboro, (P. O. St. Petersburg)— Whistle Bottling Co.'s plant; Marine Ways Machine Co,'s plant.

Fla., Largo-John S. Taylor Packing Co.'s plant : Gulf Packing House.

Fla., Tampa—Peninsular Telephone Co.'s plant; loss about \$15,000; W. G. Broerein.

C. Mitchell, Chrmn. Bldg., Comm., will erect 2 or 3-story building; brick, stone and steel,

Va., Norfolk-Salvation Army, Paul Jones, Adj., 12 Talbot St., will erect \$50,000 building on Talbot St.; 3 stories; 58x60 ft.; brick; Wickham C. Taylor, Archt., Citizens

Bank and Office.

Ga., Waycross-Laborers Penny Loan & Savings Co., Carlton W. Gaines, Prest., will erect \$90,000 building lately noted; 55x107 ft.; semi-fireproof; tar and gravel roof; plne, hardwood and concrete floors; low pressure steam heat, \$4,000; city lights, \$2500; hollow fireproof tile; ornamental terra cotta; safes; interior tile; metal doors; vaults; wire glass; vault lights; ventilators; V. W. Tandy, Arch., 1931 Froadway, New York; bids opened Nov. 20. (See Machinery Wanted-Steel (Structural); Iron (Ornamental); Vault Lights; Doors (Kalamein); Tile; Marble,)

La., Baton Rouge-Louisiana Natl. Bank will erect bank and office building at Convention and Third Sts.; 10 stories and basement; cost about \$500,000; Bedford stone, marble, steel, concrete, terra cotta and brick; flat compostion roof; marble, concrete, hardwood and pine floors; hollow fireproof tile; interior tile; vaults; 3 elevators; wire glass vault lights; steel sash and trim; San-Guinet & Staats, Fort Worth, Tex., and Edw. F. Neild, Shreveport, La., Archts. (Previously noted.)

Miss., Oxford-First National Bank will expend \$10,000 to convert Colonial Hotel into banking building; tera cotta; plate glass; metal trimmings; 2-story vault; Mahon & Broadwell, Archts., Memphis, Tenn.

Mo., St. Louis-Albert G. Blanke Real Estate Co. will finance erection of \$85,000 store and office building at Dalmar Blvd. and Eastgate Ave., Parkview; 100x125 ft.; 2 stories; 8 stores on first floor; 20 offices and reception rooms on second; Saum, Archt.,

Tenn., Rogersville-Kitzmiller-Kenner Co. will erect office building.

Va., Chatham-Jas. W. Collie will erect 3-story building; 140x31 ft.; post office and store rooms on first floor; offices on second and a wriments on third.

Churches.

Ga., Atlanta-St. Anthony's Catholic Church will erect \$50,000 building; 70x120 ft.; brick; stone foundation; basement constructed; tile roof and floors; electric lights; metal ceilings; ornamental terra cotta; interior tile; ventilators; A. Ten Eyck Brown, Archt.; bids opened Apr. 1, 1922. Address Rev. O. N. Jackson, Pastor, 251 S. Ashby St. (Lately noted.)

Ga., Statesboro-Primitive Baptist Church will erect \$20,000 building; brick; steam heat; rolling partitons; bids opened Dec. 1. Address A. J. Franklin. (Lately noted.)

La., DeRidder-Baptist Church plans to erect \$90,000 building. Address The Pastor. Okla., Holdenville-Methodist Episcopal Church will erect building. Address The Pastor.

Okla., Holdenville-Methodist Episcopal Church, South, contemplates erecting \$100,-000 building. Address The Pastor.

S. C., Columbia-Main Street Methodist Church, R. J. Byrum, Chrmn. Bldg. Comm. will improve and enlarge building; bids received on Dec. 15 at office of Lafaye &

BUILDING NEWS

BUILDINGS PROPOSED

Apartment Houses.

D. C., Washington-Jos. J. Moebs will erect \$50,000 apartment house at 1737 New Hampshire Ave., N. W.; 4 stories; brick and

Fla., Miami-Chas. Cortland will erect \$40,000 apartment house on Collins Ave. and 9th St.

Md., Baltimore—Cityco Realty Co., 2 E. Lexington St., will erect 8 store and apartment buildings and 5 dwellings from 3513 Park Heights Ave. to Segoia Ave.; cost

N. C., Wadesboro-Herbert Ingram and others plan to rebuild Ingram apartment and business building lately noted burned; cost about \$25,000.

Okla., Tulsa-Cleve Bruce will erect \$10,

000 frame and stucco apartment house at 18.4 S. Boston St.

Tex., Dallas-C. W. Burgess will erect \$16,000 apartment house at 736-38 Zang's Blvd.; 20 rooms; brick veneer.

Va., Richmond-P. S. Lubienski, 2202 Hanover Ave., will erect \$18,000 apartment house; 3 stories and basement; 30x64 ft.; brick; tile and tin roof; pine and concrete floors; electric lights; metal doors; plans and construc-tion by owner. (Lately noted.)

Association and Fraternal.

Ky., Louisville-Elks Lodge, Benjamin Sachs, Kendrick R. Lewis and others, Comm., will erect \$500,000 building; Joseph & Joseph, Archts.

Mo., Slater-Knights of Pythias will erect 2-story brick building.

Tex., Sulphur Springs-Masonic Lodge, J

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Lafaye, Archts.; plans and specifications ready on or about Dec. 1.

S. C., Fountain Inn-Methodist Church plans to erect \$60,000 building. Address The Pastor.

Tenn., Elizabethton-Christian Church plans to erect brick building. Address The Pastor

Tex., Austin—East Ave. Baptist Church, Rev. Dr. H. C. Morrison, Pastor, will erect \$60,000 building; 50x100 ft.; concrete base. C. W. Bulger & Son, Archts., Dallas. (Lately noted)

Tex., El Paso—B'nai Zion congregation, E. Klein, Treas. plans to purchase building for synagogue instead of erecting building as lately noted.

Tex., El Paso—First Baptist Church plans to erect building. Address The Pastor.

Tex., El Paso-First Methodist Church, Rev. Dr. Kruckerbocker, Pastor, plans to erect building.

Tex., El Paso-First Presbyterian Church, Rev. Dr. Poe, Pastor, plans to erect building.

Tex., El Paso—Trinity M. E. Church, Rev. Percy R. Knickerbocker, Pastor will erect \$300,000 Sunday School building; 4 stories; Crawford Harvie, Frank Powers and others Bidg. Comm.

Tex., Ennis—Baptist Church, Rev. Mr. Britten, Pastor, will erect \$65,000 building; brick; 2 stories; 99x115 ft.; C. H. Leinbach, Archt., Dallas. (Lately noted.)

Tex., Fort Worth—Broadway Baptist Church will erect \$100,000 building; 80x94 ft.; 4 stories and basement; brick and tile; gymnasium, swimming pool, roof garden, etc.; Wm. C. Meador, Archt., Dan Waggoner Bldg.; plans ready about Nov. 10. (Previously noted.)

Tex., Handley—First Baptist Church will erect \$25,000 building; 2 stories and basement; 64x80 ft.; brick and tile; far and gravel and standing seam tin roof; Wm. C. Meador, Archt., Dan Waggoner Bldg., Fort Worth.

Tex., Polytechnic—Church of Christ will erect building; Isaac Tackett, Glenwood, is Chrmn, of Comm.

Tex., Port Arthur—Trinity M. E. Church, South, will erect \$45,000 building lately noted; 40x120 ft.; concrete and tile; edge grain, tile and concrete floors; vapor steam heat; hollow fireproof tile; plaster; interior tile; steel trusses and reinforcing; Paul G. Silber & Co., Archts., San Antonio, bids opened. (See Machinery Wanted—Plumbing; Heating Plant; Electric Wiring.)

Va., Richmond—St. Paul's Episcopal Church, Rev. Dr. W. Russell Bowle, Bector, plans to erect parish house.

W. Va., Richwood-Methodist Episcopal Church, Rev. J. W. Dawson, Pastor, will erect \$40,000 building at Oakford and Walrut Sts.; fireproof; Levi J. Dean. Archt., Huntington.

City and County.

Ala., Troy—City voted bonds including \$35,000 for auditorium and \$10,000 for city hospital, Address The Mayor, (Lately noted.)

Okla. Walters-City Hall, etc.-City will erect combination city hall, fire station and auditorium. Address The Mayor.

Tenn., Memphis—Auditorium—Auditorium-Market House Comsn., R. R. Ellis, Chrmn., will open bids Dec. 1 to complete auditorium and market house; cost about \$175,000; 350x350 ft.; portion, 5 stories and basement; concrete; Bedford stone columns and trim; terra cotta cornice and wall work; tile roof; Chas. O. Pfeil, Archt. (Previously noted.)

Tex., San Antonio—Auditorium—City, Morris Stern, Chrmn. of Comm., plans to erect auditorium.

W. Va., Morgantown—City Hall—City plans to vote on bonds for improvements, including erection of city hall; Joe V. Funderburk, City Engr.

Courthouses.

Ark., Charleston—Franklin County Quorum court appropriated \$25,000 to erect court-house.

Ga., Canton—Cherokee County Board of Commrs., E. A. McCandless, W. D. Latimer and others, called election for Nov. 15 to vote on \$190,000 bond issue to erect courthouse.

Ga., Winder—Barrow County voted \$450,000 bonds to complete courthouse; J. J. Baldwin Archt., Anderson. S. S. Address Judge C. W. Parker, Winder. (Lately noted.)

Mo., Union—Franklin County, F. A. Ruger, Clk., voted \$150,000 bonds to erect courthouse and jail.

Dwellings.

Ark., Forrest City—Methodist District Conference will erect \$15,000 parsonage; 1 story and basement; 61x40 ft.; stone; Mann & Gatling, Archts., Scimitar Bldg., Memphis, Tenn.

Ark., Jonesboro—Fred Puryear will erect \$20,000 residence; 2 stories and basement; 51x32 ft."; brick; stone trim; Mann & Gatling, Archts., Scimitar Bidg., Memphis, Tenn.

D. C., Washington—Boss & Phelps will creet 4 dwellings at 3509-15 Quebec St.; cost \$40,000.

D. C., Washington—D. J. Dunigan will erect 14 dwellings at 1205-31 Jefferson St.; cost \$95,000,

D. C., Washington—H. R. Howenstein, 1314 F. St., N. W., will erect 5 2-story dwellings at 2213-21 Second St.; cost \$20,000.

D. C., Washington-S. Milwit will erect 4 dwellings at 3905-11 Georgia Ave.; cost \$24,-000.

D. C., Washington-Winfield Preston will erect 4 dwellings at 1468-74 Spring Pl.; cost \$15,000.

D. C., Washington-F. P. Sheehy will erect \$12,000 residence at 3704 Jenifer St.

Fla., Miami—Chas. R. Pease will erect bungalow at Dade Blvd, and Purdy Ave,

Fla., Tampa—Suburban Realty Co., E, G. Hankins and others, plan to erect number of dwellings.

Ga., Atlanta—J. Carroll Payne purchased property in Broodwood and plans to erect residence

Ky., Blackey—Consolidated Fuel Co., will erect 20 miners' dwellings; contract will be let at once.

Ky., Dalna—Amburgey Coal Co. will erect 10 miners' dwellings; contract will be let at once.

Ky., David—Dudley Coal Co., Caudill's Branch will erect 30 miners' dwellings; contract will be let at once.

Ky., Whitesburg—Big Four Coal Co. will erect 15 miners' dwellings at Caudill; contract will be let at once.

La., New Orleans—Mrs. Carter Earhart will erect \$15,550 dwelling at Audubon and Beall, Archt., 1335 N. Glmor St. (Lately Contr.

Md., Baltimore—Philip S. Morgan, 12 E. Lexington St., will erect three 1½-story dwellings and two 2-story dwellings and grages on Carsdale Ave., nr. Liberty Helghts Ave.; 25x30 and 24x32 ft.; frame; slate roofs;

steam heat; cost \$19,000; Geo. Wessel, Archt., 2752 Winchester St.; constructed by owner. (Lately noted.)

Md., Baltimore—Mrs. Moses Hecht, 2422 Eutaw Pl., will erect 3-story residence on Fark Heights Ave., between Seven-Mile Lane and Slade Ave.; 57x124 ft.; brick; stone trim; fireproof; English Georgian style; 2-story garage with servants quarters on second floor.; Smith & May, Archts., Calvert Bldg.; bids opened.

Md., Baltimore—Geo. J. Jolliffe, 8 Light St., will erect 5 dwellings; cost \$3500 each; 24x28 ft.; 2 stories; frame; asphalt shingle roofs; hardwood floors; electric lights; plaster board; interior tile. (Lately noted.)

Md., Easton—Chas. E. Humpheys will erect \$15,000 residence at Balleys Neck to replace structure lately noted burned; 100-x18 ft.; frame; asbestos shingle roof; pine and hardwood floors; hot air heat, \$350; Delco lights, \$500; Wallace & Warner, Archts., 1012 Walnut St., Philadelphia, Pa.; owner will open bids probably before Dec. 1.

Mo., Kansas City—Home Investment Co.. will erect dwellings at 5837, 41, 45 Grand Ave. and 5804, 8, 12 Oak St.; cost \$24,000.

Mo., Kansas City-R. L. Falkenburg will erect 10 dwellings; cost \$30,000.

Mo., Kansas City—A. P. Nichols Investment Co., will erect dwellings at 5810, 24. 28, 32 Prospect Ave. and 5801 Wabash Ave.; cost \$15.000.

Mo., Kansas City—Wm. J. Reintjes 1517 Commerce Bidg., will erect \$20,000 residence to replace structure lately noted burned; 75 x50 ft.; stone and frame; shingle roof; hardwood floors.

Mo., Kansas City-Weston Realty Co., will erect dwellings at 5028-30 and 5130 Walrond Ave.; cost \$11,000.

N. C., Winston-Salem—Standard Home Co., T. L. McGowan, Prest., E. E. James, V-P., and Gen. Mgr., will erect number of dwellings.

S. C., Chester—Purity Presbyterian Church will erect \$15,000 manse; 2 stories; brick veneer; slate roof; hardwood and pine floors; hot water heat; A. D. Gilchrist Archt., Rock Hill; bids opened in December. Address R. E. Sims, Chester. (Lately noted.)

Tenn., Chattanooga—R. A. Goldman of American Wrecking & Salvage Co., Chicago, will erect 25 dwellings in Highland Park and 50 in other locations; ultimate plans provide for large number of dwellings to cost \$1,000,-000; Alex M. Freman. Chicago, chief archt., for company.

Tenn., Jackson-P. H. Russell will erect \$10.000 residence.

Tenn., Jellico—J. H. Barker will erect \$15,000 residence; 11 rooms; brick veneer; metal tile roof; hardwood floors; steam heat; city electric lights; interior tile; Ryno & Brackney, Archts., Knoxville; owner will employ foreman to build. (Lately noted.)

Tenn., Knoxville—Frank S. McClenagan will erect \$15,000 residence; brick veneer; slate roof; steam heat; R. F. Graf & Sons, Archts.

Tenn., Knoxville—C. W. Bickley will erect \$20,000 residence; brick veneer; slate roof; steam heat; R. F. Graf & Sons, Archts.

Tenn., Knoxville-J. R. Williams will erect residence on Biddle Heights.

Tenn., Lafollette-W. A. Carden will erect \$10,000 residence; brick veneer; composition roof; furnace heat; R. F. Graf & Sons, Archts., Knoxville.

Tenn.. Nashville—Dr. J. J. Van Ness will erect \$10,000 residence at 31st St. and Acklen Ave.; c rooms; stone and stucco.

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rect tion ons, will klen Tenn., Rogerville-G. M. Kyle will erect residence on Maine St.

Tex., El Paso-Hignett & Anderson will erect 3 brick bungalows in Alexander adaition; cost \$12,000.

Va., Bristol-S. S. Copenhaver will erect brick residence on Euclid Ave.

Va., Bristol—J. D. Foust will erect brick residence on Euclid Ave. Va., Bristol—Frank Goodpasture will erect

brick residence on Euclid Ave. Va., Bristol-Eugene Lynch yill erect resi-

Va., Bristol-Eugene Lynch yill erect residence at Pearl St. and Euclid Ave.

Va., Fredericksburg—W. S. Embrey plans to erect residence nr. Fredericksburg.

Va., Gaham—James Baldwin will erect residence.

Government and State.

Fla., St. Petersburg—Post Office—W. L. Straub, Custodian, U. S. Post Office, will receive bids until Nov. 22 to construct tollet room in post office building; drawing and specifications from custodian.

Va., Roanoke—Post Office—Treasury Dept., Jas. A. Wetmore, Actng Suprvg. Archt., Washington, D. C., will receive bids until Nov. 14 to construct mezzanine, mailing vestibule, etc. in post office; drawings and specifications from custodian of site or office of Suprvg. Archt., Washington.

Hospitals, Sanitariums, Etc.

Ark., Fort Smith—Sebastian County and Baer Memorial Fund trustees will erect Baer Charity Hospital; cost \$20,500. Address County Commrs.

Ark., Little Rock—Arkansas Baptist Hospital Comsn., Dr. L. E. Barton, Prest., will erect \$100,000 central wing for Baptist Hospital at 13th and Wolf Sts.; untimate plans provide for 2 more wings to be erected later; Jas H. Bliss, Archt. (Prevously noted.)

N. C., Wilmington—Dr. E. S. Bulluck will erect \$75,000 building; 3 stories and basement; \$2x95 ft.; basement, 45x22 ft.; freproof; reinforced construction; composition roof; cement and tile floors; steam heat; electric lights; hand elevators; ornamental terra cotta; metal doors; ventilators; steel sash and trim; stores and offices on first floor; hospital to accomodate 30 patients above; Jas. B. Lynch, Archt. (Lately noted.)

N. C., Winston-Salem-City voted \$1,150,000 bonds, including \$50,000 for hospital purposes. Address The Mayor.

Okla., Tulsa—Deleware Baptist Association plans to erect hospital; Rev. W. O. Apderson, Pastor of First Baptist Church, Tulsa, Chrmn. Comm.

Tex., Kerrville—Building Board of American Legion Memorial Sanatorium of Texas, Austia, will erect third unit of hospital; Phelps & Dewees, Archts., Gunter Bldg., San Antonio.

Hotels.

Fla., Brooksville—Brooksville Hotel Co., H. D. Evans, Prest., will erect 35-room hotel. N. C., Charlotte—B. H. Griffin Hotel Co., B. H. Griffin, Prest., Yarborough Hotel, Raleigh, N. C., leased Selwyn Hotel and will erect additional rooms.

Mo., Kansas City—Bellerive Investment Co. (main office at St. Louis) Alexander M. Cornwell, Geo. P. Bland, F. J. Cornwell, Jr. and others, is reported to erect \$2,000,000 apartment hotel at Armour and Warwick Blyda; 8 stories; 175 suites of 2 and 3-room units; red matt brick with molding and coping of terra cotta; Preston J. Brad-

shaw, Archt., International Life Bldg., St. Louis.

Mo., Osceola—H. O. Smith, Industrial Comma, Kansas City, Clinton & Springfield R. R., Springfield, will erect \$600,on Osage River, near Osceola; 200 rooms; stone and hollow fireproof tile; hardwood and concrete floors; interior tile; plaster board; ventilators; also erect number of cottages; Elston, Axon & Russell, Archts., Springfield. (Lately noted.)

Tex., Corsicana—Ralph Beaton will erect \$20,000 annex to Beaton Hotel; 100x40 ft. semi-fireproof; brick and hollow fireproof tile; tar and gravel roof; concrete and wood floors; metal ceilings; plasterboard; ornamental terra cotta; interior tile; steel sash and trim; rolling partitions; wire glass; ventilators; steam heat; bids opened; H. O. Blanding, Archt., Hardy-Peck Bldg. (Lately noted.)

Miscellaneous.

La., Shreveport—Clubhouse—Business and Professional Women's Club plans to erect \$50,000 clubhouse.

Tex., Fort Worth-mome-Masonic Home and School, Thos. Fletcher, Supt., will enlarge home; accommodate 50.

Tex., Waco-Clubhouse-Tehuacana Country Club, W. P. Sparks, temporary Prest., plans to erect clubhouse 8 ml, from Waco.

Railway Stations, Sheds, Etc.

Ark., Newport—Missouri Pacific R. R., E. A. Hadley, Ch. Engr., St Louis, will expend \$10,000 to enlarge depot.

Tex., Currie-Houston & Texas Central Ry., W. Hood, Ch. Engr., San Francisco, Cal., will creet depot.

Schools.

D. C. Deanwood— (R. D. form Washington)—District Commissioners, Room 509, District Bidg., Washington, will erect addition to and make alterations to Deanwood School; bids opened Nov. 7; detailed information apply to Room 427, District Bidg.; Frank W. Ballou, Supt. of Schools, Washington; Harris, Murphy & Olmstead, Archts., 1413 H St., N.W., Washington.

D. C., Washington—District Commissioners, Room 509, District Bldg., will receive bids until Nov. 23 to erect 8-room addition to and liter John Eaton School, Lowell St., between 33rd Pl. and 34th St.; also for 12-room addition to Wheatley School at Montello Ave. and Neal St.; apply to Room 427, District Bldg., for detailed information; Frank W. Ballou, Supt. of Schools,

Fla., Jacksonville—Duval County Board of Publice Instruction plans to erect 2 junior high schools and 6 elementary schools; will call election on \$1,000,000 bond issue.

Ga., Athens-City plans election on \$379. 000 bonds to erect schools and enlarge present structures; plans by J. W. Barnett, City Engr.

Ga., Kingsland—Kingsland Consolidated School Dist. Trustees will erect high school; J. de Bruyn Kops, Archt., Savannah, will superintend construction. (Prevously noted.)

Ga., Norman Park—Norman Park School Dist. Trustees will erect school; \$25,000 bonds sold.

Ky., LaGrange-Oldham County Board of (Previously noted.)

Education, J. W. Selph, Secy., w'll erect school on Westport Pike; bids opened; T. J. Ndlan, Archt., Courier-Journal Bidg., Louisville.

Ky., Louisville—State University for Negroes will erect \$40,000 dormitory at 1011-1037 S. 8th St.; 2½ stories.

La., Alexandria—State Colony and Training School for Feebleminded Bd. of Directors Dr. J. C. Willis, Shreveport; H. H. White, Alexandria and others, will erect building at Camp Beauregard; Moise Goldstein, Archt. New Orleans; Duncan & Barron, Asso Archts., Alexandria.

Miss., Minter City—Frank Streator Consolidated School Dist. Trustees will erect \$20,000 school; 54x118 ft.; 1 story and basement; 42x47 ft, auditorium: 2 stories; brick; composition shingle roof; pine floors; steam heat, \$3000; F. R. McGeoy, Archt.; Lockett & McGinnis, Contrs., both Greenwood. (Lately noted.)

Mo., Cape Girardeau—Southeast State Teachers College will erect building; cost \$150,000; Study & Farrar, Archts., Wright Bidg., St. Louis, (Lately noted.)

Mo., Columbia—School Board will erect grade school at Sexton Rd.; plans prepared; \$75,000 bonds voted, (Lately noted.)

Mo., Cuba—Cuba School Dist. Trustees will erect 2-story brick school; steam heat; electric lights; \$17,500 bonds voted.

Mo., Springfield—Southwest State Teachers College will erect training school: 216x80 ft.; 3 stories; 8 class rooms and gymnasium on first floors; kindergarten department and 6 teachers units on second floor; 4 units of junior and senior high school classes, domestic science, domestic art, and chemical departments on third floor; cost \$250,000; Hawkins & Hoener, Archts. (Lately noted.)

Mo., St. Louis—Board of Education, C. P. Mason, Secy., will erect junior high school at Hartford Blvd. and Louisiana Ave.; details not determined; R. N. Milligan, Archt.

N. C., Greensboro-Bennett College Trustees will erect dormitory and dining hall; cost \$74,000.

N. C., Raleigh—North carolina State College of Agriculture & Engineering, Dr. W. C. Tiddick, Prest. will receive bids until Nov. 15 to erect mechanical engineering building; separate bids for heating and plumbing; 72x 180 ft.; 2 stories; reinforced concrete, brick, bollow fireproof tile, interior tile and ornamental terra cotta; composition roof; hardwood and concrete floors; metal doors; wire glass; ventilators; steel sash and trim; steam beat from central plant; plans and sepcifications obtainable at office G. Murray Nelson and Thos. W. Cooper, Archts, Commercial Bank Bldg. Raleigh; on file at Raleigh Chamber of Commerce, Charlotte Chamber of Commerce, Atlanta Builders Exchange and office architects.

N. C., Winston-Salem—City, Jas. 6. Hanes, Mayor, will receive bids until Nov. 16 to erect academic arts building and power house in connection with Richard J. Reynolds High School; 256.6x152.6 ft. and 53.2 x71.4 ft.; cost \$500.000; reinforced concrete; slate, tin and gravel roof; hollow fireproof tile; wood. linoleum, tile and cement floors; plaster board; steel sash and trim; wire glass metal doors; ventilators; direct radiation, fan system of heating and ventilating, \$75.000; plans and specification at office Chas. Barfon Keen, Archt, 1218 Chestnut St., Philadelphia, Pa.; separate proposals for installation of boilers, heating and ventilating systems; these plans and specifications at office Wiley & Wilson, Consit. Engrs., Lynchburg, Va. (Previously noted.)

N. C., Winston-Salem—City, Jas. G. Hanes, Mayor, will erect combination building for colored grade and high school adjoining present structure on Columbia Heights; 2 stories and basement; 12 class rooms; brick; bids opened, Wiley & Wilson, Consult. Engrs.. Lynchburg, Va. (See Machinery Wanted—Heating and Ventilating Equipment.)

Okla., Tahlequah—Department of Interior, Office of Indian Affairs, Charles H. Burke, Commr., Washington, D. C., will erect mess hali and kitchen at Cherokee Orphan Training School lately noted; cost \$35,000; brick; metal shingle roof; yellow pine and concrete floors; metal cellings; steam-vapo vacuum heating plant; electric lights; bids opened. the Machinery Wanted—Kitchen Equipment; Dish washer; Steam Cookers; Truck (Food); Oven.)

Okla., Wainwright—Board of Education will erect \$200,000 high school; 2 stories; brick and stone; composition roof; M. T. Hardin, Archt., Muskogee.

Tenn., Jefferson City—School Board will erect \$45,000 to \$50,000 school; 2 stories; 12 rooms and auditorium; brick; composition roof; steam heat; day labor; Waters & Tarwster, Archts., Knoxville.

Tenn., Johnson City—Board of Educaton, D. R. Haworth, Supt., will erect \$15,000 addition to Columbus Powell School; also erect additions to West Side and Martha Wilder schools.

Tex., Corsicana—State Board of Control, Austin, will erect school at State Orphans Home; cost \$45,000; 100x60 ft.; 2 stories; fireproof; reinforced concrete and hollow fireproof tile; tar and gravel roof; ornamental terra cotta; metal ceilings; plaster board; maple and concrete floors; steel sash and trim; wire glass; rolling partitions; ventilators; steam heat; H. O. Blanding, Archt., Hardy-Peck Bldg., Corsicana. (Lately noted.)

Tex., Fort Worth—Board of Education will erect Oak Lawn School: 4 class rooms; brick and tile; tar and gravel roof; furnace heat; cost \$13,000; Wm. C. Meador, Archt.. Dan Waggoner Bldg.

Tex., Fort Worth—Forest Hill Dist. School Trustees will erect \$16,000 school; brick and tile; tar and gravel roof; wood floors; metal ceilings; rolling partitions; furnace heat. Address Wm. C. Meador. Archt., Dan Waggener hild. (Lately noted.)

Tex., Galveston—City Board of School Trustees, Chas. Fowler, Prest., will erect 6-room addition to West District negro school at 35th St. and Avenue M½; Donald McKenzle, Archt, (Lately noted.)

Tex., San Antonio—Westmoorland College for Girls, Dr. Felix R. Hill, Jr., Prest., will erect building to accommodate 500.

Va., Lynchburg—School Board, R. C. Blackford, Chrmn., will receive bids until Nov. 15 to erect colored high school; plans and specifications at office Craighill & Cardwell. Archts., 517 Peoples Bank Bidg.

W. Va., Huntington—Board of Education, C. L. Wright, Supt. of Schools, plans \$2.000.000 bond issue; will confer with archtects and secure estimates.

W. Va., Pruntytown— (R. D. from Grafton)—West Virginia Industrial School for Boys, H. E. Elesber, Supt., will erect \$100,000 building: 2 stories and basement, frame.

Stores.

Ark., Little Rock—Central Supply Co. will erect 5-story brick building at Markham and Scott Sts.; cost \$40,000.

Fla., Miami Beach-L. A. Fitch will erect 3 wings with courts between; brick veneer;

commercial building at 1105-07 Fifth St.; cost \$10,000,

Fla., Plant City—W. B. Herring contemplates erecting 2-story brick store and apartment building; 165x99 ft.; brick; cost \$35,000; tentative plans by L. C. Fallin; also remodel old armory for apartments; cost \$4000.

Ga., Athens—Dozier Land Co., contemplates erecting business building at College Ave. and Washington St.

Ga., Athens-P. O. Waß and I. N. Butler will erect brick business block at Lumpkin and Dougherty Sts.; cost \$35,000; plans by J. W. Barnett, City Engr.

Ky., Louisville-Lillian Muth will erect \$10,090 store and residence at 1000 E. Oak St.

Mo., Kansas City-Porter Hall will erect \$10,000 building at 2738-42 Troost Ave.; 1 story; brick.

Mo., St. Louis—Detering Real Estate Co., E. D. Detering, Prest., 3627 Gravels Ave., will erect ,35,000 store; 3 stories; 50 x 100 ft.; brick; Henry Schaumberg, Jr., Archt., 3631 Connecticut St.

N.C., Albemarle-Morrow Bros. & Heath Co., A. C. Heath, Mgr., will erect 2-story brick building on Main St.

N. C., Biltmore—L. B. Jackson will erect 2 brick store buildings.

N. C., Charlotte—Mrs. Bessie M. Wilson plans to erect several business buildings on S. Tryon and Third Sts.

N. C., Scotland Neck-Danford E. and Robt. C. Josey, Jr. will erect business building on Main St.; brick,

Tenn., Memphis—Ceylon B. Frazier and W. G. Thomas will erect \$30,000 business block, 238-40 Court Ave.; 2 stories; 60x110 ft.; brick and stone; Raymond Spencer, Archt., Goodwyn Institute Bldg.

Tex., Paris—Rodgers-Wade Furniture Co. contemplates erecting office and salesroom to replace structure lately noted burned.

Tex., Port Arthur—W. C. Tyrreli, B.aumont, plans to erect 3-story business and office building at Proctor St. and Beaumont Ave.

Tex., Uvalde—Geo. Horner Hardware Co., will erect \$11,000 warehouse a will erect \$25,000 to \$30,000 building to re-

place burned structure; 50x100 ft.; concrete, frame, tile and brick; Barrett specification roof; concrete floors; metal ceilings; wire glass; steel sash and trim; vaults; electric elevator.

Va., Lynchburg-Virgina-Carolina Supply Co., Norfolk, will eerect building at 8th and Church Sts.

W. Va., Huntington—C. M. Morrison Store Co., 814 20th St., will remodel and erect 2-story addition, 30 x 100 ft., to adjoining building.

W. Va., Wheeling—Wheeling Tile Co. will erect \$12,000 frame building on 32nd St.

Theaters.

Ky., Lexington-M. Switow and Wm. James will erect \$200,000 theater and office building; 80x254 ft.; 3 stories and basement; fireproof; brick; hollow tile and reinforced cencrete; stone trim; composition roof; concrete and tile floors; ornamental terracotta; metal doors; steel sash and trim; wire glass; ventilators; low pressure steam heat; electric passenger elevator; bids opened Dec. 1. Address Joseph & Joseph, Archts., Atherton Bldg., Louisville, (Lately noted.)

W. Va., Wheeling-W. H. Morgan will erect \$24,000 theater on 17th St., Warwood.

Warehouses.

Ark., Morrillton-Morrillton Cotton Compress Co., E. F. Wade, Mgr., will reconstruct 3 warehouses lately noted burned: cover 812,500 sq. ft. space; require 1,000,000 ft. lumber and 750,000 brick; fireproof walls and steel fire doors: cost \$75,000.

Ky., Louisville—B. & B. Ice & Coal Co. will erect \$10,000 storage building, 1401 W. Ormsby Ave.

Md., Baltimore—Morgan Millwork Co., 113-29 W. North Ave., will erect storage building at Falls Rd. and Trenton St.; 129 x 158 ft.; 3 stories; brick; blds opened, J. E. Laferty, Archt., 522 N. Charles St.

Mo., Springfield—Thomas Fruit Co., Inc., will erect warehouse at 6th and Virginia Sts.; 4 stories.

Tex., Fort Worth-Peden Iron & Seel Co., will erect \$11,000 warehouse at Bryan and Daggett Aves.; galvanized iron.

BUILDING CONTRACTS AWARDED

Apartment Houses.

Fla., Daytona Beach— Mrs. M. H. Van Valzah is crecting \$10,000 aparfment house at Atlantic Ave. and Smith Ter.; 2 stories; frame and stucco; 62x30 ft.; 4 suites; slate surfaced shingles; Fuquay & Gheen, Archts. and Contrs.; construction begun. (Lately noted.)

Fla., Miami—G. D. Kilmartin will erect \$10,000 apartment house; 2 stories; frame and stucco; 6 suites; tille roof; Harry Wright, Contr., Syracuse, N. Y.

N. C., Charlotte—J. W. Mobley will erect \$20,000 apartment house; 40x50 ft.; frame; asbestos shingle roof; pine and hardwood floors; low pressure steam heat; electric lights; no architect; plans by J. W. Mobley's son, Warren Mobley, University of North Carolina, Chapel Hill; C. L. Wentz, Contr., Charlotte. (Lately noted.)

Association and Fraternal.

Ga., Atlanta-Salvation Army will erect \$54,000 building on Luckie St., between Simpson and Alexander Sts.; 3 stories; 95x77 ft.; 3 wings with courts between: brick veneer:

N. Thornoson, Archt., 122 W. 14th St., New York; Shelverton Const. Co., Contr., Atlanta. (Lately noted.)

Mo., Springfield—Abou Ben Adhen Shrine will erect mosque; 140x267 ft.; fireproof; structural steel, concrete, brick, stone and terra cotta; Moorish type; Heckenlively & Mark, Archts.; John M. Olsen, contr. at \$257,000; ultimate expenditure of building, \$343.400. (Previously noted.)

Tex., Houston—Young Men's Christian Association will erect 3-story building at Austin St. and Rusk Ave.; 150x125 ft.; steel, stone and brick; Wm. Ward Watkins, Maurice J. Sullivan and B. P. Briscoe, Asso. Archts.; W. F. Thompson, consulting Archt.; Don Hall, contr. for building and swimming pool at \$225,625; Geo. J. Robischung, heating, plumbing, refrigerating and swimming pool equipment at \$42,484; Barden-Electrical & Contracting Co., electrical equipment at \$4,427. (Previously noted.)

Bank and Office.

Ky., Frenchburg-J. R. Hicks will erect 1-story bank building; plans by owner; Henry Martin, Contr., Winchester. crete, New Orleans-Canal-Commercial Bank Co. will erect \$20,000 addition to building at 939 Decatur St.; Favrot & Livaudais, Archts.; L. F. Favrot, Contr.

> Tenn., Knoxville-Albert B. Baumann will erect 2nd story addition to Price-Baumann Tire Co. building for offices; cost \$18,000; 25.6x105 ft.; brick and ordinary construction; asphalt and tile roof; oak and concrete floors; hot water heat; electric lights; metal cellings; safes; interior tile; wire glass; ventilators; plans by owner; J. F. LaRue & Son, Contrs. (Lately noted.)

> Va., Culpeper-Drs. Marshall and Humphries will erect \$25,000 office and apartment building; 3 stories; 40x80 ft.; brick; composition roof; concrete, pine and oak floors; steam heat; city lights; elevators, 7.6x4 or 4.6 ft.; ventilators; G. R. Ragan, Archt., Roanoke; C. H. Hitt, Contr., Culpeper. (See Machinery Wanted-Building material; Millwork; Flooring; Electric Fixtures; Plumb-

Churches.

Ark., El Dorado-First Baptist Church will erect \$150,000 building at Main St. and West Ave.; 2 stories; brick; stone trim; Dougherty & Gardenr, Archts., 934 Stahlman Bldg., Nashville, Tenn.; Stewart-McGehee Const. Co., Contr., Little Rock, Ark, (Previously noted.)

La., Houma-Methodist Episcopal Church, Rev. Mr. McCoy, Pastor, will erect \$18,000 building; 40x65 ft.; brick; composition roof; wood floors; gas steam heat; Favrot & Livaudais, Archts., New Orleans; W. J. Quick, Contr., Lake Charles. (Lately noted.)

N. C., Charlotte-Caldwell Memorial Church will erect \$40,000 to \$50,000 building; Thies-Smith Realty Co., Contr.

Tex., Fort Worth-Weatherford Street M. E. Church will erect \$55,000 building; brick and tile; 2 stories and basement; gymnusium and swimming pool; Wm. C. Meador. Archt., Dan Waggoner, Bldg.; Cain & Estill, Contrs. (Lately noted.)

Va., Winchester-Church of United Brethern, Rev. Geo. W. Stover, Pastor, will erect \$70,000 church and Sunday school building; 1 story and basement; 60x100 ft.; Chas. Kountz, Archt., Negley Bldg., Hagerstown, Md.; Glaze Bros., Contrs., Winchester. (Previously noted.)

W. Va., Ronceverte-Methodist Episcopal Church, South, will erect \$40,000 building; brick; 1 and 2 stories and basement; 85x 46 ft.; slate or Johns-Manville asbestos roofing; oak floors: steam heat; electric lights; hollow fireproof tile; ornamental terra cotta; rolling partitions; G. R. Ragan, Archt., Roanoke, Va.; R. L. Wright, Contr.; construction begun. (Lately noted.)

City and County.

Okla., Holdenville-Convention Hall-City will erect \$15,000 convention hall and armory; Norris Buchanan, Contr., Hartshorne. (Lately noted.)

Dwellings.

La., New Orleans-S. Salco will erect \$10,-000 duplex residence at Chestnut and Washington Sts.; P. G. Charbonnet, Contr.

Md., Baltimore-Calvert Development Co. will erect 7 two-story frame cottages at 3403 15 Forest Park Ave.; cost \$14,000; Fredk. E. Beall, Contr., 1335 N. Glimor St. (Latey noted.)

Md., Baltimore-Daniel Kratz, 13.7 Madison Ave., will erect \$10,000 residence and garage at 3415 Copley Rd.; 3 stories; brick; will erect \$80,000 school; 2 stories; brick and 34x29 ft.; slate roof; hot water heat; J. H. joist construction; tar and gravel roof;

Steinacker, Archt., 28 Sanford Ave.; G. Walter Tovell, Contr., Eutaw and McCullough Sts. (Lately noted.)

S. C., Cedar Spring-South Carolina School tor Deaf and Blind will erect superintendent's residence; cost \$13,969; frame and brick veneer; yellow pine floors; interior tile; Edwards & Sayward, Archts.; Pittman Const. Co., Contr., both Atlanta, Ga. (Lately noted.)

Tex., Galveston-Silas D. Reid will erect \$20,000 residence at 625 Ave. J; brick veneer; Coyle Bros., Contrs.

Hospitals, Sanitariums, Etc.

Fla., Miami—City, C. S. Coe, City Mgr., will erect 2 ward buildings at city hospital; 2 storles; 40x210 and 34x100 ft.; fireproof; reinforced steel; elevator; August Geiger, Archt.; Smalridge & Foster, Contrs. (Lately

Miscellaneous.

Fla., Tampa-Exhibit-South Florida Fair Assn. will erect exhibit building; 75x150 ft.; mill construction; composition roof; con-crete flors; electric lights; cost \$90,000; Logan Bros., Contrs., 918 Citizens Bank Bldg.

Tex., Eliasville-Market-C. T. and S. R. Hill will erect 50x118 ft. stone building for market and garage; contract let.

Va., Princess-Clubhouse-Lynnhaven Country Club, D. H. Goodman, Chrmn. Bldg. Comm., 127 Granby St., Norfolk, will erect \$45,000 clubhouse; 1 and 2 stories; 180x62 ft.; brick and frame; slate roof; concrete and wood floors; hot water heat, \$4000; Calrow & Wrenn, Archts., Monroe Bldg.; B. B. Spigel, Asso. Archt., 112 Main st.; Seay Bros., Contrs., 24th St. and Colonial Ave., all Norfolk. (Lately noted.)

Railway Stations, Sheds, Etc.

Mo., St. Clair-St. Louis-San Francisco Ry. Mo., St. Chair-St. Louis-San Francisco s., Co., F. G. Jonah, Ch. Engr., St Louis, will erect depot; 1 story; 24x106 ft.; frame shin-gle roof; wood floors; cost \$75,000 without mechanical equipment; B. C. Stevens, Archt., Frisco Bldg., St. Louis; J. W. Gerhardt Con-str. Co., Contr., Cape Girardeau. (Lately noted.)

Okla., Oklahoma City—Missouri, Kansas & Texas Ry., Fank Ringer, Ch. Engr., St. Louis, will erect freight depot to replace structure lately noted burned : freight house. 45x401 ft.; second story portion, 45x71 ft.; brick and frame; warehouse, 45x330 ft.; frame and mill construction; steel doors; maple floor; 28,300 sq. ft. passenger platform; 530 sq. yds. vitrified brick pavement; H. D. McCoy, Contr., Cleburne, Tex. (Lately noted.)

Schools.

Ala., Pike Road-Montgomery County Board of Education, A. F. Harmon, Supt., Montgomery, will erect brick addition to school to consist of home economics depart-ment of 3 rooms, kitchen, sewing and dining rooms, science department of 2 laboratories and lecture room, manual training department, additional office space and undeveloped basement; Okel & Cooper, Archts., Vandiver Bldg.; I. O. Anderson, Contr., both Montgomery. (Lately noted.)

D. C., Washington-District Commissioners, Room 500, District Bldg., will erect 4-room addition and alter James Monroe school; Columbia Rd. and Georgia Ave.; cost \$74,640; M. Seretto, Contr., 3 Tremont Row, Boston, Mass. (Lately noted.)

Ga., Carrollton-City, A. K. Snead, Mayor, will erect \$80,000 school; 2 stories; brick and

maple floors; 2-pipe gravity steam heat; Hents, Reid & Adler, Archts., Atlanta; Batson Cook Co., Contr., West Point, Ga. (Lately noted.)

N. C., Durham-City Board of Education will erect 265x145 ft. high school; 3 stories; also 136x233 ft. colored school; 2 stories; both structures concrete, brick and hollow tile; Barrett specification and slate roofs; composition and concrete floors; interior tile; metal doors; accordion doors; cost \$434,832; Milburn, Heister & Co., Archts., Washington, D. C. and Durham; Salmon, Shipp & Poe, Contrs., Durham; lately party (See Mochice West) noted. (See Machinery Wanted-Blackboards (Slate).

N. C., Raleigh-Building Committee, State School for Blind, R. S Busbee, Chrmn., will erect superintendent's residence, addition to administration building, 3 cottages, boiler house and laundry building lately noted; fireproof; Ludowici-Celadon clay tile roof; hollow tile; hardwood and concrete floors; interior tile; metal doors; steel sash and trim; wire glass; ventilators, cost \$300,000; lighting, \$8000; Jas. A. Salter, Archt., Rai-eigh. Address Carolina Construction Co., Contr., Hamlet. (See Machinery Wanted-Hoisting Equipment; Engine; Concrete Mixer; Buggies (Concrete.)

N. C., Warrenton-Board of Education. Judge Jno. H. Kerr, Chrmn. Bldg. Comm., will erect high school; 3 stories; brick, hollow tile, concrete, steel, terra cotta and stone : Barrett roof; hardwood and concrete floors; mechanical heating and ventilating (bids opened in about 60 days); electric wiring; plumbing; cost about \$100,000; C. Gadsden Sayre, Archt., Anderson, S. C., and Raleigh, N. C.; Riggan Lumber Co., Contr., Henderson, N. C. (Lately noted.)

S. C., Zion-Board of Education will erect school; Southern Construction Co., Contr.,

Va., Portsmouth-School Board will erect addition to Woodrow Wilson High School; 16 rooms; also erect annex to Jefferson Street School; 8 rooms and auditorium; both structures brick; tar and gravel oof; rift pine and concrete floors; rolling partitions; wire glass; hot air heat with fan; electric lights; Chas. M. Robinson, Archt., Times-Dispatch Bidg., Richmond; E. C. Ford, Portsmouth, contr. at \$95,000 for former; Duke & Smith, Portsmouth, contrs. at \$64,-924 for latter; American Heating & Venti-lating Co., Richmond, heating for both schools at \$21,690 and \$14,380. (Lately noted.)

W. Va., Matoaka-Rock District Board of Education, M. R. Dodd, Supt. of Schools, will creet \$75,000 grade school; 3 stories; 101.2x 129.6 ft.; 11 rooms and auditorium; brick; Trinidad Lake asphalt built up roof; wood floors; hot water or steam heat; electric lights; H. M. Le Roy, Archt., Bluefield; Chas. Hughes, Contr., Matoaka. (Lately noted.)

Stores.

Fla., Daytona— Alex Samra will erect store and office building; 16x75 ft.; brick and hollow fireproof tile; built up roof; wood and tile floors; metal ceilings; ventilators; Fuquay & Gheen, Archts., Daytona Beach; General Construction Co., Contr., E. D. Hunt, Mgr., Daytona.

Fla., Daytona-J. T. Nelson will erect \$30,-000 store and office building; 70x60 ft.; brick and hollow fireproof tile; wood joists; built up roof; tile, concrete and wood floors; metal ceilings; ventilators; electric lights; Fuquay & Gheen, Archts., Daytona Beach; General Construction Co., E. D. Hunt, Mgr. Daytona. (Lately noted.)

Fla., St. Petersburg-W. S. Ross, 9th St.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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erect wner; and 7th Ave., north, will erect \$12,000 store and apartment building; 50x45 ft.; 2 stories; brick and hollow fireproof tile; built-up roof; wood and tile floors; gas heat; electric fixtures; W. S. Shull, Archt.-Contr. (Lately noted.)

La., New Orleans—National Shirt Shops will expend \$15,000 to repair building at 711 St. Charles St.; H. G. Markel, Archt.; L. F. Favrot, Contr.

La., New Orleans—U. S. Cigar Co. will remodel buildings at 325 Camp St., 901 Decatur St. and Carondelet and Union Sts.; cost \$41,000; Acme Construction Co., Contr.

Tenn., Memphis—W. E. Graves will erect \$15,000 brick mercantile building at Madison Ave. and Claybrook St.; A. B. Lanning, Contr. (Lately noted.)

Tenn,, Rogersville—Dr. Armstrong will erect brick building to be leased by Rogers & Co.; Rogersville Improvement Co., Contr.

Tex., Houston-Haverty Furniture Co., T. J. Haverty, Prest., will erect 6-story building at Capitol and Rusk Aves.; 50 x 125 ft.; concrete and tapestry brick; cost \$200,000; Alfred C. Finn, Archt.; American Construction Co., Contr.

Tex., Sherman—Marks Bros, will erect department store building; 3 stories and basement; 75 x 180 ft.; ordinary construction; tar and gravel roof; wood floors; electric lights; 1 freight and 1 passenger elevator. cost \$80,000; Jno. Tulloch, Archt.; Jerry Wall, Contr. (Lately noted.)

Va., Richmond—Dr. Ira J. Haynes, P. O. Box 24. will erect \$12,000 building lately noted; 2 stores 20x60 ft. and 6-room flat; brick; tin and slag roof; pine, maple and oak floors; interior tile; metal ceilings; Arcola heating plant for flat; electric and gas lights; I. T. Skinner, Archt., Hawthorne Ave.; J. A. Sweeney, Contr., Garland Ave. (See Machinery Wanted—Heating Plant.)

W. Va., Richwood—Purtz & Hicks will erect 2-story concrete building on Main St.; Boso Bros., Contrs.

Warehouses.

Md., Baltimore—Christhilf & Ensey, 608 Munsey Bldg., will erect warehouse and office building; 15x30 and 30x60 ft.; brick and steel; J. S. Downing, Archt., 11 York Court; Maryland Art Metal Co., Contr., 804 Munsey Bldg.

Mo., Kansas City—Perky Bros. Transfer & Storage Co., 3212-14 Independence Ave., will erect storage warehouse; 60x110 ft.; 6 stories; reinforced concrete, brick and hollow fireproof tile; composition roof; cement floors; metal doors, steel sash and trim; interior tile; hot air heat; electric lights; freight eleevator, 8x18 ft.; safes; vaults; Clifton B. Sloan, Archt., 321 E. 11th St.; Jno. Gosling, 225 R. R. Exchange Bldg., contr., at \$69,662. (Lately noted.)

Theaters.

Ga., Augusta—Geo. Kirsch will erect moving picture theater at 9th and Walker Sts.: cost \$15,000 Sibert & Robertson Contrs.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Barrows (Wheel).—S. W. Imnon Construction Co., Box 351, Greensboro, N. C.—Prices on 2 wheel barrows (concrete.)

Battery Material.—W. W. Kathan, 538 S. Victor St., Tulsa, Okla.—Prices on oxide of manganese, chloride of zinc, sal ammoniac, praphite carbon, flour carbon sticks and sulphite pulp paper. (See Construction News—Miscellaneous Factories.)

Blackboards (Slate).—Salmon, Shipp & Poe Durham N. C.—Slate blackboards. (See Contracts Awarded—Schools.)

Boller.—R. P. Johnson, Wytheville, Va.— Dealers prices on 60 to 80 H.P. Economic type, second-hand boiler complete with fixtures and stack; good condition.

Boilers (Water Tube).—Sewerage & Water Board of New Orleans, Geo. G. Earl, Supt., 526 Carondelet St., New Orleans, La.—Bids until Dec. 23, 1500-1800 H.P. water tube boilers; information on application.

Bollers.—L. F. Seyfert's Sons, 437 N. 3rd. St., Philadelphia, Pa.—Two 100 H. P. locomotive boilers and one 66-in. x 16-ft. H.R.T. boiler, in good condition; state price and location.

Brick.—Piedmont Building Material Co., W. McC. Neale, 730 S. Elm St., Greensboro, N. C.—Prices on hard bricks, load bearing tile, pressed and fire bricks. (See Construction News—Lumber Manufacturing.)

Bridge Construction.—City Commrs., Valparaiso, Fla.—Bids about Dec. 1 to build 750-ft. pile, bent timber bridge; wood floors, (See Construction News—Bridges, Culverts, Viaducts, Etc.)

Bridge Contruction.—Whelan Bridge Dist., Gurdon, Ark.—Bids until Nov. 15 to build 220-ft. steel span bridge; alternate designs on plain and reinforced concrete abutments; Ak. (See Construction News—Road and Street Construction.)

Bridge Construction.—State Highway Dept., Jefferson City, Mo.—Bids until Nov. 15 to build 20 and 14-ft. reinforced concrete slab span bridges on State road from Warrenton westward; cost \$7,114.70; Warren County, State Aid Project 20,68; H. D. Griffith, Div. Engl., DeSoto, Mo. (See Construction News—Bridges, Culverts, Etc.)

Buggies (Concrete).—Carolina Construcion Co., Hamlet, N. C.—New or second-hand concrete 2 wheel buggies.

Building Equipment.—S. W. Imnon Construction Co., Box 351, Greensboro, N. C.—

Prices on building contractors rigs, elevators and hoisting engine.

Building Material.—C. H. Hitt, Culpeper, Va.—Prices on building material including doors, windows, sash, interior materials, flooring, tile for bath rooms, etc. (See Contracts Awarded. Bank and Office.)

Bunkers (Coal).—George J. Adams, Consit. Engr., Norwalk, Conn.—Second-hand coal bunker about 100 ton capacity.

Candy Machinery, etc.—L. N. Smith, Mariana, Fla.—Mchy. suitable for making candy and preserves.

Can Making Outfit.—W. W. Kathan, 538 S. Victor St., Tulsa, Okla.—Prices on complete outfit to make zinc cans. (See Construction News—Miscellaneous Factories.)

Caps and Nuts.—W. W. Kathan, 538 S. Victor St., Tulsa, Okla.—Prices on brass caps and knurled nuts. (See Construction News.—Miscellaneous Factories.)

Capping Machinery.—Mississippi Cane Syrup Co., J. C. Clower, Prest., Gulfport. Miss.—Capping machinery for plant with 3,000-gals. daily output of cane syrup and molasses. (See Construction News—Canning and Packing Plants.)

Cars (Gondola).—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.— 25 steel underframe flat bottom gondola cars.

Chimney (Radial).—Navy Dept., Bureau of Yards and Docks, Washington, D. C.—bids until Nov. 16, radial brick chimney, 150-ft, high, 7 ft. inside diam, at top, concrete foundation provided by Government (Bellevue); Spec. 4534; plans on file, (See Construction).

Cinders.—Dist. Commrs., Room 509, Dist. Bldg., Washington, D. .—Bids until Nov. 12 to furnish and deliver 3,000 cu. yds. cinders; information obtainable at Room 320, Dist. Bldg.

Coach (Combination).—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Combination passenger and baggage coach.

Cold Storage Plant.—Maryland State Dairymen's Assn., 812 Fidelity Bldg., Baltimore, Md.—Cold storage plant for creamery. (See Construction News—Miscellaneous Factories.)

Compressor (Air).—D. C. Elphinstone, 408 Continental Bldg., Baltimore, Md.—Portable

air compressor, gasoline driven, furnish about 100 ft. of air per min. at 80-100 lbs.

Concrete Mixer.—Carolina Construction Co., Hamlet, N. C.—New or second-hand ½ cu. yd. concrete mixer.

Creamery Equipment.—Maryland State Dairymen's Assn., 812 Fidelity Bldg., Baltimore, Md.—Cream separator, churn, pastuerizer. (See Construction News—Miscellaneous Factories.)

Crusher.—Ernest Molnar, Chemist, Florida Terminal Co., Fernandina, Fla.—Crucher for sampling department, to crush wet phosphate rock to ¼-in. size.

Culverts (Metal).—E. R. Axon, Engr., West Plains, Mo.—Prices on metal culverts. (See Construction News—Road and Street Construction.)

Dish Washer.—Department of Interior, ffice of Indian Affairs, Chas. H. Burke, Commr., Washington, D. C.—See Kitchen Equipment.

Ditch Digging Machine.—City of Brownwood, Tex., Ira W. Hall Chrmn. Sewer Committee—Invites proposals on ditch digging machine suitable for making ditch for 18 in. sewer mains, about 10 ft. deep; consider new or second-hand machines.

Doors (Kalemein).—Carlton W. Gaines, Laborers Penny Loan & Savings Co., Waycross Ga.—Prices on Kalemein doors. (See Buildings Proposed, Bank and Office.)

Drainage.—Board of Drainage ommrs. of Leflore County, W. T. Loggins, Prest., Greenwood, Miss.—Bids until Nov. 10 to construct 3.09 mi. canal, total excavation 198,355 cu. yds.; also clearing Turkey Bayou, distance of 27,900 ft., approximately 64.2 acres; bids opened Nov. 10; Eli Abbott, Jr., Engr.

Drainage.—Abiaca Drainage Dist. Commrs. of Leflore, Holmes and Carroll Counties, Greenwood, Miss.—Bids uutil Nov. 22 to construct drainage channels, 500,000 cu. yds. excavation; Morgan Engineering Co., Engr.

Dredging.—U. S. Engr. Office, Post Office Bldg., Savannah, Ga.—Blds until Nov. 30 to dredge Brunswick Harbor, Ga.; information on application.

Dredging.—H. L. Washburn, County Auditor, Houston, Tex.—Bids opened Nov. 10 for clearing portion of Sims Bayou in Drainage Dist. No. 2. M. H. Olson, Commr.

Dry Cleaning Machinery.—B. S. Gaines, Frankfort, Ky.—Dry cleaning mehy. including washers, drying tumbler, extractor, all 1921.

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Elevator.—S. W. Imnon Construction Co., Box 351, Greensboro, N. C.—Prices on elevators.

Electric Fixtures.—C. H. Hitt, Culpeper, Va.—Electric light fixtures. (See Contracts Awarded, Bank and Office.)

Electric Wiring.—Paul G. Silber & Co., San Antonio, Tex.—Electric wiring for church. (See Building Proposed, Churches, Tex., Port Arthur.)

Elevator (Coal),—Alex M. Robinson Georgetown, Ky.—Dealers price on coal elevator for elevating coal from ground shute to top of concrete bin, 50 ft. high; consider used outfit if in good condition.

Engine (Hoisting).—S. W. Imnon Construction Co., Box 351, Greensboro, N. C.—Prices on hoisting engine, etc.

Engine.—Carolina Construction Co., Hamlet, N. C.—See Hoisting Equipment.

Engine.—Gray Bros. Excelsior Co., G. W. Gray, Woodford, Va.—35 to 50 H.P. slow speed steam engine; good condition.

Engine (Marine).—Waterfront & Foundation Construction Co., Box 257, Charleston, S. C.—Second-hand crude oil engine, 60 to 75 H.P.; must be in good condition.

Extractors (Hydro).—George J. Adams, Const. Engr., Norwalk, Conn.—48-in, hydroextractors, second-hand.

Filling Machinery.—Mississippi Cane Syrup Co., J. C. Clower, Prest., Gulfport, Miss.—Filling machinery for plant with 3,000-gals. daily output of cane syrup and molasses. (See Construction News—Canning and Packing Plant.)

Flooring.—C. H. Hitt, Culpeper, Va.—See Building Material.

Flooring.—Piedmont Building Material Co., W. McC. Neale, 730 S. Elm St., Greensboro, N. C.—Prices on oak, maple and pine flooring. (See Construction News—Lumber Mfg.)

Flour Mill.—W. S. Bentley, Greenvile, S. C., R. D. 3.—Names and addresses mfrs. of flour mills

Forms (Road).—D. C. Elphinstone, 408 Continental Bldg., Baltimore, Md.—4,000 ft. road forms.

Graders.—6. T. Stamford, Kickapoo, Tex. Prices on graders, (See Construction News—Road and Street Construction.)

Grinders.—E. A. Fowler, 2121 Oak St., Baltimore, Md.—External and surface grinders.—(See Construction News—Foundry and Machine Plants.)

Hand Sets for Field Telephones.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids at office of Depot Quartermaster U. S. M. C., 1100 S. Broad St., Philadelphia, Pa. until Nov. 8 for furnishing 50 hand sets for field telephones for delivery to Depot Quartermaster, U. S. M. C., Philadelphia, Pa.; Seh. No. 131.

Heating Plant.—Dr. Ira J. Haynes, P. O. Box 24, Richmond, Va.—Arcola heating plant for flat of 6 rooms and hall. (See Contracts Awarded—Stores.)

Heating Plant.—Paul G. Silber Co., San Antonio Tex.—Heating plant for church. (See Building Proposed Churches Tex., Port Arthur.)

Hoisting Equipment.—Carolina Construction Co., Hamlet, N. C.—Single drum steam hoisting engine.

Hose (Fire).—H. Gerard Hartog, Box 74, Greenwood, S. C.—Names and addresses mfrs. of fire hose.

Insulation.—E. C. Ivey, Prest., Standard Ice Co., 609 Main St., Lynchburg, Va.—Insulation for 50x75-ft. cold storage plant. (See Construction News-Ice and Cold Storage Plants.)

Iron (Ornamental).—Cariton W. Gaines, Laborers Penny Loan & Savings Co, Waycross, Ga.—Prices on ornamental iron. (See Buildings Proposed, Bank and Office.)

Kettles, etc.—Mississippi Cane Syrup Co., J. C. Clower, Prest., Gulfport, Miss.—Kettles, etc., for plant with 3,000-gal daily output of cane syrup and molasses. (See Construction News—Canning and Packing Plants.)

Kitchen Equipment.—Department of Interior, Office of Indian Affairs, Chas. H. Burke, Commr., Washington, D. C.—Dish washer, steam cookers, food truck and warm oven. (See Buildings Proposed—Schools—Okla., Tahlequah.

Lathe (Engine).—L. F. Seyfert's Sons, 437 N. 3rd. St., Philadelphia, Pa.—72-in. engine lathe to swing at least 60 in. over carriage, 22 ft. between centers; standard modern tool, prefer motor driven.

Lathes.—E. A. Fowler, 2121 Oak St., Baltimore, Md.—Four 16-in. lathes and four No. 4 W. & S. turret lathes. (See Construction News—Foundry and Machine Plants.)

Lighting Fixtures.—Treasury Dept., Supvg. Archt's Office, Washington, D. C.— Bids until Nov. 16 to furnish and install lighting fixtures in U. S. Public Health Service Hospital, Norfolk, Va.; plans on file.

Lock Gates.—U. S. Engr. Office, 2nd Dist., Cincinnati, O.—Bids until Nov. 18 to furnish and erect steel lock gates for Locks Nos. 30 and 32, Ohlo River.

Locomotive.—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—10 wheel or consolidation type locomotive, 70 to 75 tons, 180 lb. steam.

Lumber.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Nov 8 for furnishing 26,669-ft. pine lumber for delivery to Depot Quartermaster, U. S. M. C. Naval Operating Base, Hampton Roads, Va.; Sch. No. 130; proposals, blanks, etc., on file.

Lumber.—Pledmont Building Material Co., W. McNeale, 730 S. Elm St., Greensboro, N. C.—Prices on small dimension lumber up to 2x12-in. car lots, f.o.b. Greensboro; also Southern kiln dried stock in pine. (See Construction News—Lumber Manufacturing.)

Marble.—Carlton W. Gaines, Laborers Penny Loan & Savings Co., Waycross, Ga.—Prices on interior marble. (See Buildings Proposed, Bank and Office.)

Mechanical Equipment.—Board of Awards, Mayor Wm. F. Broening, Prest., Baltimore, Md.—Separate proposals in duplicate until Nov. 16 at office Richard Gwinn, City Register, City Hall, for machinery equipment for Department of Education, and furnishing and installing machinery and other equipment for Baltimore Polytechnic Institute; specifications at office Board of School Commrs., Jno. H. Roche, Secy., Madison and Lafayette Aves.

Millers.—E. A. Fowler, 2121 Oak St., Baltimore, Md.—Two No. 2 B. & S. millers. (See Construction News—Foundry and Machine Plants.)

Millwork.—C. H. Hitt, Culpeper, Va.—See Building Material.)

Mixer(Concrete).—S. W. Imnon Construction Co., Box 351, Greensboro, N. C.—Prices on concrete mixer.

Mixer (Concrete).—R. P. Johnson, Wytheville, Va.—Dealers prices on late model self loading ¾ yd. Smith concrete mixer; good second-hand condition.

Motor.—B. S. Gaines, Frankfort, Ky.— Motor for dry cleaning plant. (See Construction News—Miscellaneous Enterprises.) Nut Cracking Machinery.—L. N. Smith, Marianna, Fla.-Nut cracking mchy, for pecans and peanuts.

Oil (Fuel).—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until Nov. 21 to furnish fuel oil. Blank forms and information (Circular 14-61) on application to offices of: Panama Canal; Asst. Purchasing Agts. at New York, New Orleans, La., Fort Macon, San Francisco, Ca.; U. S. Engr. offices throughout country.

Oven.—Department of Interior, Office of Indian Affairs, Chas. H. Burke, Commr., Washington, D. C.—See Kitchen Equipment.

Paving.—City, Mat Miser, Commr Streets and Sewers, Huntington, W. Va.—Bids until Nov. 12 to pave Collins Ave. and 24th St.; plans, etc., on file, and with A. B. Maupin, City Engr. (See Constructon News—Road and Street Construction.)

Paving.—City, Geo. Grupe, Mgr., Brownsville, Tex.—ids in Feb. 1022 to pave streets; \$250,000; J. O. Spencer, City Engr. (See Construction News—Road and Street Construction.)

Paving.—Commr. Public Works, R. C. Cantwell, Wilmington, N. C.—Bids until Nov. 29 to construct 90,000 sq. yds. sheet asphalt, asphaltic concrete, bitulithic, Kentucky rock, brick or concrete pavement with storm sewers; plans, etc., on file, and with arolina Engineering Co., Engr. (See Construction.)

Paving.—City, Claywood Glazener, Clk, Marletta, Okla.—Blds until Nov. 17 to construct 25,100 sq. yds. street paving; 16,200 lin. ft. curb; etc.; plans, etc., from Henry Exall Elrod Co., Engr. 3206 Elm St., Dallas, Tex. (See Construction News—Road and Street Construction.)

Paving (Mixer).—R. P. Johnson, Wytheville, Va.,—Dealers prices on paving mixer about 3 bag capacity; good second-hand condition.

Piling (Steel).—D. C. Elphinstone, 408 Continental Bldg., Baltimore, Md.—Six hundred 12-in. straight web sheet steel piling 25-ft. long.

Pipe Bending Machines.—E. A. Fowler, 21-21 Oak St., Baltimore, Md.—Pipe bending machines. (See Construction News—Foundry and Machine Plants.)

Plumbing.—C. H. Hitt, Culpeper, Va.— Prices on plumbing. (See contracts Awarded, Bank and Office.)

Plumbing.—Paul G. Silber & Co., San Antonio, Tex.—Plumbing for church. (See Buildings Proposed, Churches, Tex., Port Arthur.)

Press (Rotary).—George J. Adams, Consit. Engr., Nowalk, onn.—Second-hand 72-in. rotay press, single or double bed.

Pumps.—Maryland State Dairymen's Assn., 812 Fidelity Bldg., Baltimore, Md.—Pumps for creamery. (See Construction News—Miscellaneous Factories.)

Refrigerating Machinery.—E. C. Ivey, Prest., Standard Ice Co., 609 Main St., Lynchburg, Va.—Refrigerating mchy. for 50x75-ft. plant. (See Construction News— Ice and Cold Storage Plants.)

Road Building Material.—E. R. Axon, Engr., West Plans, Mo.—Prices on reinforcing steel and cement. (See Construction News—Road and Street Construction.)

Road Building Materials.—White & Simpson, Contrs., Chatham, Va.—Prices on cement, sand, slag and stone for North Carolina work. (See Construction News—Road and Street Construction.)

Road Construction.—Harrison County, W. H. Strength, Judge, Marshall, Tex.—Bids until Nov. 14 to improve 19.03 mi. Marshall-

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Longview, 2.15 mi. Marshall-Shreveport roads; 6 in. compacted gravel base, 2 in. compacted crushed stone with bituminous surface treatment, 16-ft. wide; plans, etc., with Geo. A. McClellan, County Engr., Marshall, and State Highway Dept., Austin, Tex. (See Construction News—Road and Street Construction.)

Road Construction.—North Carolina State Highway Comsn., Raleigh, N. .—Bids until Nov. 18 to construct 10.24 mi. State Highway in Davidson ounty between Lexington and Rowan county line on Route 10; plans from Dist. Engr., Greensboro, or Raleigh. (See Construction News—Road and Street Construction.)

Road Construction.—Virgina State Highway Comsn., 116 S. Third St., Richmond, Va.—Bids until Nov. 15 to construct 6.19 mi. waterbound macadam road with alternate bid on bituminous macadam on State Road No. 23 between Ripplemead and Hoge's store in Giles County; Va. Project No. 128-A; plans, etc., on file, and with Resident Engr., Roanoke, Va.

Road Construction.—Highway Dept., Board State Engrs., 332 Maison Blanche Annex, New Orleans, La.—Bids until Nov. 21 to construct 18.5 mi. St. Joseph-Sommerset highway, Tensas Parish; information from Duncan Buie, State Highway Engr., New Orleans. (See Construction News—Road and Street Construction.)

Road Construction.—North Carolina State Highway Comsn., Raleigh, N. C.—Bids until Nov. 18 to construct 11.70 mi, State highway in Guilford county between end of Federal Aid Project 47 and Alamance County line on Route 10, State Project 5321 plans from Dist. Engr., Greensboro, or Raleigh. (See Construction.)

Road Construction.—North Carolina State Highway omsn., Raleigh, N. C.—Bids until Nov. 18 to construct 14.85 mi. State highway in aswell County between Yanceyville and Alamance County line on Route 62; Project 511; 39,000 cu. yds. top-soil, sand, clay or gravel surfacing; plans from Dist. Engr., Greensboro or Raleigh, N. C. (See Construction News—Road and Street Construction.)

Road Construction.—State Highway Comsn. of Alabama, Montgomery, Ala.—Bida until Nov. 29 to construct road between Mobile and Chickasha; 4.66 mi.; 49,255 sq. yds. plain cement concrete pavement; plans, etc., on file at Montgomery, with Div. Engr., Selma, Ala., and County Engr., Mobile, Ala. (See Construction News—Road and Street Construction.

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids until Nov. 12 to construct 3.21 mi. State road south of Ashand; Boone County, State Aid Project 20. 77; cost \$27,148.34; S. M. Rudder, Div. Engr., Sedalia, Mo. (See Construction News—Road and Street Construction.)

Road Construction.—State Highway Dept., Jefferson City, Mo.Bids until Nov. 11 to construct 1.804 mi. State road from Chillicothe southward; cost \$50,052.64; Livingston County State Aid Project 20.34; A. C. Singey, Div. Engineer. St. Joseph, Mo. (See Construction News—Road and Street onstruction)

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids until Nov. 11 to construct 2.330 ml. State road from Perry westwardly; cost \$9.424.81; Ralls County, State Aid Project 20.102; M. H. Hanick, Div. Engr. Howe Bidg., Macon Mo. (See Construction News—Road and Street Construction.)

Road Construction.—State Highway Dept. Jefferson City, Mo.—Bids until Nov. 10 to

construct 1.403 mi. State road from Perryville to Clarksville; cost \$43,397.93; M. S. Murray, Div. Engr., Sikeston, Mo. See Construction News—Road and Street Construction.)

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids until Nov. 10 to construct 3.185 mi. State road from Clarksdale southwestwardly; DeKalb County, State Aid Project 20.32; cost \$27,601.03; A. C. Sinley, Div. Engr., St. Joseph, Mo. (See Construction News—Road and Street Construction.)

Boad Construction.—State Highway Dept., Jefferson City, Mo.—Bids until Nov. 15 to construct 2.14 ml. State road from west of Warrenton; cost \$25,756.78; Warren County, Road and Street Construction.)

Road Construction.—Stephens County Commrs., Breckenridge, Tex.,—Bids in near future to construct 31 ml. bituminous macadam road on Highway No. 1; Nagle, Witt-Rollins Engineering Co., Engr. (See Construction News—Road and Street Construction.)

Road Construction.—Hays County, J. R. Wilhelm, Judge, San Marcos, Tex.—Bids until Nov. 12 to construct 13.92 mi. Highway 29-A, Section B; also 2.79 mi. Highway 29-A; both State Aid Project 243; Job 106-C; plans, etc., with State Highway Dept., Austin, Tex. and J. W. Puckett, County Engr., Buda, Tex.

Road Construction.—Hunt County, O. P. McWhirter, Judge, Greenville, Tex.—Bids in near future to construct 9.66 mi. 16-ft. gravel bituminous road on Highway No. 1; A. D. Duck, County Engr.

Roofing.—Piedmont Building Material Co., dresses mfrs. of prepared or felt roofing.

Roefing (Prepared or Felt).—N. Carolina W. McC. Neale, 730 S. Elm St., Greensboro, N. C.—Prices on prepared roofing. (See Construction News—Lumber Manufacturing.)

Boofing (Slate).—S. S. Rozier, Secy., East Flat Rock High School, East Flat Rock, N. C.—100 squares of slate roofing for school

Roller (Tandem team).—D. C. Elphinstone, 408 Continental Bidg., Baltimore, Md.—5 ton tamden steam roller, for use in western Maryland.

School Equipment.—Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—See Machinery Wanted.)

Scrapers.—S. T. Stamford, Kickapoo, Tex.— Prices on scrapers. (See Construction News—Road and Street Construction.)

Scrapers.—White & Simpson, Contrs., Chatham, Va.—Prices on Fresno scrapers. (See Construction News—Road and Street Construction.)

Screens.—Escambia Sand & Gravel Corp., Provision Co., Cornelia, Ga.—Names and ad-C. D. S. Clarkson, Prest.-Mgr., Flomaton, Ala.—Prices on complete set of vested screens for laboratory work. (See Construction News.—Mining.)

Sewers.—H. A. Conrad, City Engr., Wheeling W. Va.—Bids until Nov. 12 to construct 560 ft. renforced concrete pipe sewer; manhole and culvert entrance. (See Construction News—Sewer Construction.)

Sewers.—City, Mayor Grouchy, Baton Rouge, La.—Bids opened Nov. 8 to construct S-in. sewer line and manhole in St. Ferdinand St. from Boulevard to Ralroad Ave.; plans, etc., from A. G. Mundinger, City Engr. (See Construction News—Sewer Construction)

Sewers.—City, R. C. Cantwell, Commr. of Public Works, Wilmington, N. C.—Bids until Nov. 29 to construct sewers and appurtenances; plans, etc., on file and with Carolina Engineering Co.. Engr., 412 Southern Bidg. Sewers.—City, Geo. Grupe, City Mgr., Brownsville, Tex.—Bids until Feb. 1922 to construct sewerage disposal plant; J. O. Spencer City Engr. (See Construction News—Sewer Construction.)

Sewers.—City of Columbia, Mo.—Bids about Dec. 1 to extend sewer system and sewage treatment plant; construct 4 ml. 8-in. piping; disposal plant; Imhoff tanks and sprinkling filters; E. J. McCaustland, Engr., 103 Engineering Bldg. (See Construction News—Sewer Construction.)

Shapers.—E. A. Fowler, 2121 Oak St., Baltimore, Md.—Prices on shapers. (See Construction News—Foundry and Machine Plants.)

Shell.—Matagorda County, John F. Perry, Judge, Bay City, Tex.—Prices on shell for constructing road. (See Construction News—Road and Street Construction.)

Shoe Machines.—Southern Shoe Mfg. Co., L. L. Gwin, Prest.—Mgr., 1609 Duncan Ave., Chattanooga, Tenn.—Machines to make Goodyear welt shoes.

Steel (Structural).—Carlton W. Gaines, Laborers Penny Loan & Savings Co., Waycross, Ga.—Prices on structural steel. (See Buildings Proposed, Bank and Office.)

Steam Cookers.—Department of Interior, Office of Indian Affairs, Chas. H. Burke, Commrs., Washington, D. C.—See Kitchen Equipment.

Shingles.—Piedmont Building Material Co., W. Mc. Neale, 730 S. Elm St., Greensboro, N. C.—Prices on shingles. (See Construction News—Lumber Mfg.)

Tanks (Holding).—Maryland State Dairymen's Assn., 812 Fidelity Bldg., Baltimore, Md.—Holding tanks for creamery. (See Construction News—Miscellaneous Factories.)

Tanks (Sterage).—Maryland Equipment & Supply Co., Equitable Bldg., Baltimore, Md.—Three 10,000 gal. closed storage tanks, old tanks from tank cars would be suitable; state price, location and particulars; urgent.

Tanks.—Sewerage and Water Board of New Orleans, Geo. G. Earl, Supt., 526 Carondelet St., New Orleans, La.—Bids until Dec. 23, two 55,000 gal. capacity fuel oil tanks; information on application.

Tanks (Wood).—Winchester Orchard Supply Co., Winchester, Va.—Wood tanks for water storage, about 40,000 gal. capacity.

Tank and Tower.—George J. Adams, Con-Sit. Engr., Norwalk, Conn.—50,000-gal capaity steel tank and 75 ft. tower, second-hand.

Telephone Supplies.—Bradford Home Tele-Co., J. A. Fisher, Mgr., Bradford, Tenn.— Prices on telephone supplies. (See Construction News—Telephone Systems.)

Terminals.—W. W. Kathan, 538 S. Victor St., Tulsa, Okla.—Prices on acorn head terminals. (See Construction News-Miscellaneous Factories.)

Tile.—Carlton W. Gaines, Laborers Penny Loan & Savings Co., Waycross, Ga.—Prices on Welsh Quarry tile. (See Buldings Proposed, Bank and Office.)

Tooth Pick Machine,—Creek Lumber Co., Stamps, Ark.—Machine to mfre. tooth picks.

Truck (Food).—Department of Interior, Office of Indian Affairs, Chas. H. Burke, Commr., Washington, D. C.—See Kitchen Equipment.

Valve (Gate).—Newland Brick Co., Newland, N. C.,—16-in. iron body gate valve, inside screw, flanged, faced and drilled; suitable for 150 lb. working water head; prefer second-hand if in good condition.

Vault Lights.—Carlton W. Gaines, Laborers Penny Loan & Savings Co., Waycross,

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Winter Maintenance

Saves Spring Repairs—

It's expensive to neglect your roads through the winter - to abandon them to the freezes and thaws that ravel the surface and play havoc with the foundation. As a matter of fact, proper maintenance is even more important in winter than in summer.

Here's an easy, inexpensive method of maintenance that is being used by experienced road officials all over the country:

Before the snow comes—they patch the road surface with "Tarvia-K P." Then, from time to time during the cold weather, they do whatever further patching becomes necessary. ("Tarvia-KP" can be used whenever the roads are free from snow.) As a result they not only have good roads all winter, but they avoid a lot of expensive repair work in the spring.

"Tarvia-K P" is generally recognized as the most economical, efficient, and convenient-to-use of all road-patching materials. It can be employed on hard roads of every type. It is mixed cold and applied cold. And as the "mix" does not deteriorate with age and is uninjured by freezing, it may be made up in good-sized batches for use as required.

An illustrated booklet giving full directions for repairing different types of roads with "Tarvia-KP" will be sent on request. If you have any troublesome problems in road construction, maintenance or repairs, the Special Service Department will gladly help you solve them. Please address the nearest office.

w York Detroit Salt Lake City Elizabeth

Chicago New Orleans Seattle Lebanon Buffalo

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Boston Kansas City Atlanta Toledo The Barrell Company

St. Louis Minneapolis Duluth Columbus Houston

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Vancouver

St. John, N. B.

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Ga.—Prices on vault lights. (See Buildings Proposed, Bank and Office.)

Water Works—City, Chas. Alves, Mayor, New Braunfels, Texas—Bids until Nov. 10 gal. capacity standpipe; M. L. Diver, Engr., to extend water-works; construct 1,000,000gal. capacity standpipe; M. L. Diver, Engr., Bedel Bldg., San Antonio, Texas.

Woodworking Machines.—John G. Duncan Co., Jackson and Central Sts., Knoxville, Tenn.—Dealers prices on new, second-hand or rebuilt machines to make splits out of wood for common split bottom chairs.

Zinc (Sheet).—W. W. Kathan, 538 S. Victor St., T ulsa, Okla.—Prices on sheet zinc cut to battery sizes. (See Construction News—Miscellaneous Factories.)

Financial News

New Financial Corporations.

Fla., Crescent City—Peoples Bank of Crescent City, capital \$25,000 incptd., with A. B. Harbison, Prest; W. C. Cartledge, Cashr.

La., Baton Rouge—Welfare Loan Society, capital \$400,000 incptd., by Geo. W. Walls, C. H. Jarvis, L. B. Phillips.

La., Shreveport—Welfare Loan Society, capital \$500,000 incptd., by H. C. Holston, C. J. Carter.

Md., Baltimore—National Brokerage Co., 25 W. Pratt St., capital \$30,000 incptd., by Geo. E. Linthicum, Henry L. Miller.

N. C. Charlotte—Industrial Loan & Savings Bank, capital \$500,000 organized by Eddie E. Jones and Ivey W. Stewart.

Tenn., Bristol— Bristol Industrial Bank, capital \$50,000 will organize with Carl King, W. W. Lockett and others.

Tenn., Knoxville—Tenn Finance Corp., capital \$500,000, incptd., by R. G. Wright, Dan M. Chambliss

Tex., Childress-Farmers & Mechanics Trust Co., capital \$60,000 incptd., by J. M. Crews, C. E. Crews.

'Va., Clarendon—Clarendon Trust Co., capital \$100,000 incptd., with Frank T. Stone, Prest., Clarendon; Marshall L. Dinwiddle, Secv. Alexandria.

W. Va., Fairmont—East Side Building & Loan Assn. capital 130,000 incptd., by Carl D. Springer, T. A. Hughes.

New Securities.

Ala., Birmingham—Road—Jefferson County Board of Revenue sold \$51,000 of 5 per-cent road bonds as follows: \$50,000 to Ward, Stern & Co. and \$1,000 to Junior Chamber of Commerce; these are part of \$105,000 issue advertised.

Ala., Lanett—Water and Sewer—City sold \$20,000 of water and sewer bonds; these are a part of \$55,000 offered on Sept. 19; L. H. Wright, Mayor. (Previously noted inviting bids.)

Ala., Troy—Funding, Auditorium School, Hospital and Water—City voted \$65,000 funding, \$10,000 high school, \$35,000 city auditorium and \$25,0000 water-works. Address The Mayor. (Lately noted to vote.)

Ark., Lonoke—Road—Lonoke County Road Dist. No. 9 sold \$25,000 of 6 per-cent semi-annual \$500 denomination road bonds, dated Oct. 1, 1921, to Wm. R. Compton Co., St. Louis Mo.

Fla., Green Cove Springs-Road-Clay

County sold \$47,500 road bonds to Bryson Live Stock Co., Jacksonville, Fla. (Supersedes recent item.)

Fla., Jacksonville—School—Duval County, Board Trustees and Board of Public Instruction plans voting on \$1,000,000 school bonds.

Fla., Kissimmee— School—Osceola County Board of Public Instruction sold \$12,000 of 8 per-cent semi-annual \$500 denomination warrents to, Bank of Osceola .County (Lately noted inviting bids.)

Fla., Lakeland—School—Board of Education sold \$80,000 school bonds.

Fla., Miami-Docks-City will vote Nov. 1 on \$300,000 dock bonds. Address The Mayor.

Fla., West Palm Beach—Inlet—Palm Beach County Commrs. voted \$100,000 inlet bonds. (Lately noted to vote.)

Fla., West Palm Beach—Street, Sidewalk, Sewers, Seawall, Park and Boulevard—City, Karl Riddle, Mgr. plans \$500,000 street, sidewalk, sewer seawall, park and boulevard bond issue. (Lately noted.)

Ga., Athens—School—Board of Education plans issuing \$379,000 school bonds.

Ga., Canton—Courthouse—Cherokee County Commrs. will vote Nov. 15 on \$100,000 courthouse bonds.

Ga., Moultrie—School—Norman Park School Dist. sold \$25,000 of 6 per-cent bonds to Atlanta firm. Address Board of Education.

Ky, Lexington—Auditorium, School and Street—City will sell \$1,200,000 bond as follows: \$500,000 auditorium, \$400,000 school building, \$300,00 street; these bonds were voted in November 1919. Address The Mayor.

Ky., Louisville—Sewer—City Sinking Commrs. purchased \$350,000 sewer bonds.

La., Amite—Road—Tangipahoa Parish Road Dist. No. 1 sold \$325,000 of 5 per-cent \$500 denomination bonds toW. L. Slayton & Co., Toledo, O., at 92.50 and interest. (Lately noted inviting bids.)

Miss., Gloster—Town, J. L. Longmire, Clk. will receive bids until Dec. 6 on \$23,000 of 6 per-cent \$500 denomination 20-yr. bonds.

Miss., Hazelhurst-Road-Copiah County voted \$50,000 additional road bonds. Address County Commrs.

Mo., Burlington Junction—Water—City plans voting on \$39,000 water plant bonds. Address The Mayor.

Mo., Columbia—School—City will sell \$95,000 bonds voted in October. Address The Mayor.

N. C., Benson—School—Board Trustees, Benson Graded School Dist., Johnston Country will receive bids until Nov. 19 at office of J. H. Rose, Secy. on \$8,000 of 6 per-cent semiannual \$1000 denomination school bonds, dated June 1, 1921; these bonds are remainder of \$20,000 issue.

N. C., Edenton-Road-Chowan County sold \$300,000 of 6 per-cent semi-annual road bonds; R. W. Boycé, Clk. Commrs. (Lately noted inviting bids.)

N. C., Kinston—Electric—City sold \$300,-000 of 6 per-cent electric bonds to A. B. Leach & Co., New York at par and interest,

N. C., Laurinburg—School—Laurinburg Graded School Dist. sold \$150,000 of 6 percent 30-yr. school bonds, dated Oct. 1, 1921 to, Stacy & Braun, Toledo, O., 2£ 6.17%. (Lately noted invited bids.)

N. C., Littleton—Water, Electric, Sewer and Sidewalk—City voted \$140,000 bonds including \$50,000 water, \$50,000 sewer, \$25,000 sdewalk and \$15,000 electric light system. Address The Mayor.

N. C., Rutherfordton—School—Rutherford County Board of Education, W. R. Hill, Clk. will receive bids until Nov. 12 on \$25,000 of 6 per-cent semi-annual \$1000 denomination school bonds, dated Dec. 1, 1921.

N. C., Swanquarter—School—G. M. Guthrie, County Supt. Public Instruction will receive bids until Dec. 5 on \$6,000 of 6 percent semi-annual Sladesville High School Dist.

N. C.. Thomasville—Water—City sold \$100,-000 water bonds to First National Bank, at par and interest; semi-annual \$1,000 denomination, dated Oct. 1, 1921. (Lately noted inviting bids.)

N. C., Wendell-Water-Town Commrs. will receive bids until Nov. 15 on \$12,000 of 6 per-cent semi-annual \$500 denomination water bonds, dated Jan. 1, 1921; W. A. Brame, Mayor.

Okla., Chickasaw-Water, Sewer and Bridge
-City voted \$80,000 bonds including \$50,000
water and sewer and \$30,000 bridge; John
C. Milliken, Engr. (Lately noted to vote.)

Okla., Oklahoma City-Water-City will vote Nov. 26 on \$1,600,000 water bonds; Mike Donnelly, Commr. Accounting and Finance. (Lately noted.)

Okla., Tulsa—Water—City Commrs, will vote Nov. 29 on \$6,800,000 water-works bonds. (Lately noted.)

Okla., Tulsa—Road—Tulsa County will vote on \$50,000 bonds of Adams Creek township. Address County Commrs.

S. C., Charleston—Road and Bridge—Charleston County will vote Nov. 22 on \$400,000 of 6 per-cent semi-annual \$1000 denomination road and bridge bonds; Wm. P. Cantwell, County Supvr.

S. C., Darlington—Street—City, J. A. Mc-Leod, Mayor sold \$75,000 of 6 per-cent street bonds to Bank of Darlington at par.

S. C., Greenville—Water and Sewer—City plans voting on 300,000 water and \$100,000 sewer bonds. Address Mayor Harvley.

S. C., Sumter—Road and Bridge—Sumter County sold \$500,000 of 6 per-cent road and bridge bonds, dated July 1, 1920 to, Sidney, Spitzer & Co., Toledo, O., at 100.53.

S. C., Union—School—Union School Dist. No. 11, Board of Trustees will receive bids until Nov. 15 on \$75,000 of 6 per-cent school bonds, dated Jan. 1, 1922. (Lately noted bids Oct. 27.)

Tenn., Clarksville—Highway—Montgomery County Court will receive bids until Dec. 15 on \$75,000 of 6 per-cent semi-annual 30yr. highway bonds; John T. Cunningham, County Judge.

Tenn., Nashville—Capitol Boulevard—City will vote Nov. 17 on \$400,000 capitol boulevard extension bonds; Felix Wilson, Mayor.

Tenn., Paris—Highway—Henry County, W. I. Dade, Clk. Court will receive bids until Nov. 15 on \$150,000 of 6 per-cent highway bonds.

Tex., Breckenridge—Road—Attorney General's Dept., Austin, Tex., approved \$1,4000,000 of $5\frac{1}{2}$ per-cent road bonds.

Tex., Breckenridge—J. L. Arlitt, Austin, Tex. purchased \$1,400,000 of 5½ per-cent Stephens County bonds.

Tex., Caldwell—School—Attorney General, Austin, Tex., approved \$125,000 City school bonds.

Tex., Canadian—Water and Sewer—Attorney General, Austin, Tex. approved \$5,000 sewer and \$5,000 water bonds; 6 per-cent 40-yr. with 20-yr. option.

Tex., Center—Water and Sewer—City, J. W. Shotwell, Secy. will sell at public auction Nov. 15, \$60,000 water and \$30,000 sewer bonds; 6 per-cent semi-annual \$1000 denomination, dated June 1, 1921. (Lately noted.)

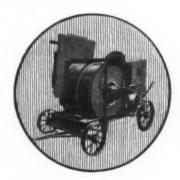
"Satisfactory in Every Way" —Miller Bros.

Two months ago Miller Bros., Cleveland contractors, bought their first Lakewood Universal mixer. "Satisfactory in every way" is what they report after giving it a thorough try-out.

They like the way the Universal keeps going and turns out the mix—they like its tough build—the clutch—and the folding low charge platform.

The Lakewood Universal makes friends on the job. You'll like it, too. Try one on your next job.





The Lakewood Engineering Company, Cleveland U.S.A.

LAKEWOOD METHODS AND MACHINES

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Tex., Clarksville—Road—Red River County Road Dist, No. 12, bonds were registered by State Comptroller, Austin, Tex.

Tex., Dallas-Road-Dallas County, Chas. E. Gross, Auditor sold \$2,700,000 of 5½ percent road bonds to Edwin Hobby, Prest. Hobby Investment Co., who represented J. T. Bowman and S. R. Fuller Austin, Tex. (Previously noted inviting bids.)

Tex., Farmersville—Water and Sewer—State Comptroller, Austin, Tex. registered \$55,000 water and \$45,000 sewer bonds.

Tex., Fort Worth-Sewer-City sold \$375,000 sewer bonds to Eldredge & Co.

Tex., Fort Worth—School—Arlington Heights Independent School Dist. purchased \$125,000 of 6 per-cent \$1000 denomination school bonds, dated June 25, 1921.

Tex., Fort Worth—School—Forest Hill School Dist. will sell \$20,000 of 6 per-cent 40-yr, option school bonds; bids opened Nov. 10. Address Wm. C. Mendor, 910 Dan Waggoner Bldg.

Tex., Gatesville—Water—City voted \$42,500 water bonds, Address The Mayor. (Lately noted to vote.)

Tex., Gonzales—School—Dist. No. 19, Five Mile School voted \$7,000 school bonds. Address Board of Education.

Tex., Greenville—Street—City sold \$75,000 street bonds to Breg, Garrett & Co, Dallas, Tex., at 87.50 with accrued interest.

Tex., Harlingen—Street, Electric and Sewer—J. L. Arlitt, Austin, Tex. purchased \$40,000 street, \$32,000 electric and \$47,000 sewer bonds; 6 per-cent \$1000 denomination, dated Aug. 1, 1921.

Tex., Harlingen—Street, Sewer and Electrie—J. L. Arlitt, Austin, Tex., purchased \$120,000 of 6 per-cent sewer, electric and street bonds. (Previously noted.)

Tex., Haskell—Street and Water—City sold \$30,000 street and \$20,000 water bonds recently registered with State Comptroller, (Lately noted.)

Tex., Karnes City—Water—Attorney General, Austin, Tex. approved \$65,000 of 6 per-cent serial City water-works bonds.

Tex., Mt. Calm—School—Mount Calm Independence School Dist. registered \$7,000 of 5 per-cent serial bonds on Oct. 17 with State Comptroller.

Tex., Port Arthur—Paving, Sewer, Water and Bridge—City voted \$486,000 bonds including \$232.873 paving, \$63.559 sewer, \$123,791 watermain extension and \$66,000 drawbridge. Address The Mayor. (Lately noted to vote.)

Tex., San Angelo—Street—City may vote on \$150,000 street bonds. Address The Mayor.

Tex., Sherman—Grayson County registered \$38,000 of 5 per-cent 5-40-yr, bonds with State Comptroller.

Tex., Uvalde—Street—City voted to issue \$50,000, street paving warrants; J. J. Wainwright, Mayor.

Tex., Vernon-Electric-City. Harry Mason, Mayor will vote on electric light bonds.

Tex., Willis—School—Willis Independendence School Dist.r registered \$39,000 of 5 per-cent 5-40-yr. bonds with State Comptroller.

W. Va., Charleston-Highway-State sold \$500,000 highway bonds to John H. Turley, Mgr. Prudential Insurance Co., Fairmont, W. Va.

W. Va., Huntington—School—Board of Education plans voting on \$200,000 bonds.

Financial Notes.

The National Bank of Commerce of St. Louis, John G. Lonsdale, president, has

addition, now given over largely to savings, opened the new addition to its building at Broadway and Pine Sts, increasing the first floor banking space one third. More than 6,000 square feet of area have been added to the floors, giving the Institution one of the largest bank buildings in the country. The new quarters, formerly occupied by the Mortgage Trust Co., accomodate the bond, trust and safe deposit departments. The trust and bond departments were removed from the Commerce Trust Building the number of savings depositors having grown in four years to 45,000. The bank was first organized 64 years ago.

Virginian Bank of Commerce, Princeton, W. Va. increased capital from \$25,000 to \$50,000.

South Louisville Bank, Louisville, Ky. will increase capital from \$25,000 to \$50,000.

Trade Literature

Burning Pulverized Coal.

A folder displaying and describing the merits of the Pulverburner has been issued by the K-B. Pulverizer Company, Inc., 92 Lafayette Street, New York. This device is described as "the mechanical unit of a more efficient and more generally applicable system of burning powdered fuel." Powdered fuel, it is noted is 50 per cent more economical than fuel not in powder form, as it burns perfectly with less heat loss and no smoke waste.

White Cedar Ice Cream Tubs.

Displaying pictures and descriptions of its products in a fine bulletin the Richmond Cedar Works, Richmond, Va., manufacturers of Virginia white cedar ice cream packing tubs, also presents in the same publication the story of these tubs and of the famous wood of which they are made. This white cedar is found in the fastnesses of the Dismal Swamp in the southeastern part of Virginia and also along the shores of Albemarle Sound in North Carolina. The narrative is full of interest.

A Business Directory of Mexico.

A classified business and commercial directory of Mexico, including Mexico City and all towns of importance in that country, has been issued by the American Book & Printing Co., S. A.; Ave. F. I. Madero 25, Mexico, D. F. The book covers more than 250 different lines of business and professions, giving 100,000 names and addresses; it has 1400 pages. It is a volume which will no doubt be found very useful and valuable by individuals, firms and companies transacting business in Mexico.

New Line of Dry Vacuum Pumps.

A bulletin of practical value and timely interest is No. 710 of the Chicago Pneumatic Tool Company, 6 East 44th Street, New York, which is the first bulletin issued by the company on the subject of dry vacuum pumps, a line of which is presented, steam, belt or motor driven. In them are incorporated several new features of design together with refinements developed by twenty five years of engine-building experience and they embody the high standards of workmanship and materials which characterize all of this company's products. These dry vacuum pumps are, it is stated, particularly suitable for service in sugar houses, canneries, condensed milk factories, gasoline extraction

plants, glycerine and other chemical works and power plants; they are also used in vacuum drying processes, concentration of syrups, liquors, etc. The bulletin contains full descriptions and tables, besides appropriate illustrations.

A Fine Paper-Weight

A handsome and convenient paper-weight bearing a likeness of Abraham Lincoln on brass and in photographic form, has been issued by the Walter A. Zelnicker Supply Co.. St. Louis. The photograph is surrounded by an artistic border.

Installation and Telescopic Hoists

Gillis & Geoghegan, 537 West Broadway, New York, have just issued a two-color catalog of twenty pages, 8½ by 11 inches in size. It is fully illustrated with reproductions of photographs of actual installations of G. & G. telescopic hoists, as used for handling ash cans, barrels, trays, etc. It also contains two forms of specifications for each model, one a very short form and another which describes the various parts of a complete telescopic hoist installation. A copy will be sent to anyone on application to the firm.

How to Use Power Pipe Threading Machines

"Don't Let it Happen to You," a booklet issued by the Williams Tool Corporation, Erie, Pa., tells two parallel stories of business and pleasure, one showing how a pleasure trip was spoiled by unpreparedness and the other how a business contract was made less profitable, if not totally unprofitable by a like shortcoming. It is noted that the book "is written and illustrated particularly for the man that operates or owns a power pipe threading machine." There is included much valuable data and other information regarding the care and use of dies for threading pipe.

Cost of Steel Fabric in Concrete Road

A small pamplet issued by the National Steel Fabric Company, Plittsburgh, Pa., contains an exceedingly interesting article entitled "Steel Fabric in Concrete Road Costs One Cent a Square Yard to Place," written by H. Eltinge Breed, consulting engineer, New York City. It covers the first contract let under the 1921 specifications of the State of Pennsylvania, and gives detailed information about its execution on a road about 2¼ miles long. The pamphlet also presents another article by Mr. Breed entitled "Reinforced vs. Plain Concrete Highways." It shows conclusively the merits of reinforcement.

Sharon Co. Bring Out New Trailer and Hand Truck

The Sharon Pressed Steel Co., of Sharon, Pa., have recently produced and put on the market a trailer and live skid known as the "Brute," which is of all steel construction excepting for the flooring and the wheels. It is designed for heavy service, strength and durability. It can be used as a lift truck on practically all standard tractors. They have also produced a hand truck made of steel throughout excepting the wheels and handles. These trucks are made with straight cross bars for general use or with depressed cross bars for handling barrels. Both of these additions to the Sharon line are described in appropriately illustrated circulars.



The longest-wearing tires that have yet been produced.

Massive cushion tires that protect the load, the engine and the chassis;

That grip the road surface firmly, preventing wheel-spinning and side-skidding;

That enable the truck to negotiate road difficulties which would stop the truck equipped with ordinary tires;

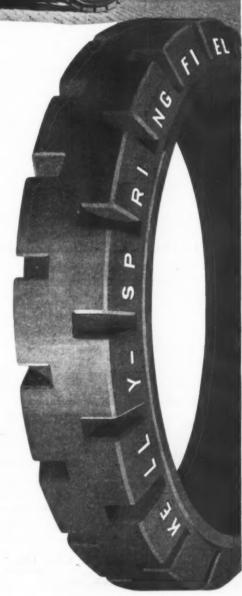
That above all are economical, costing far less than big pneumatics and wearing far longer than solids—

This is a brief description of Kelly Caterpillar truck tires, made in sizes suitable for trucks of every type and weight.

KELLY - SPRINGFIELD TIRE CO.

GENERAL SALES DEPARTMENT

1710 BROADWAY, NEW YORK.



INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, rallroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from s-vertisers.

Large Sale of Batteries to Take Place.

In another column formal announcement is made of a large and important sale of storage batteries 6500 in number, which will take place at 10 A. M. Tuesday Nov. 22, at the auction rooms of Samuel T. Freeman & Company, 1519-1521 Chestnut Street, Philadelphia, Pa. These batteries, which are all of well known makes, were manufactured for the United States Navy for auxiliary lighting and radio work and they will be sold in lots to suit. The auctioneers will supply catalogs.

October Their Best Month in Over a Year.

The Rogers-Wade Furniture Co., manufacturers at Paris, Texas, whose up-town office and salesrooms building was recently destroyed by fire, hope to be in a new fireproof building on the old site by the middle of next summer. Meanwhile the offices and salesrooms are located in a practically new building that was leased the night of the fire, and is equipped with goods from the company's warehouse and other furniture for sale. The manufacturing plant was not involved, being at another location. The fire loss was well covered by insurance, but the contents of a large Mosler safe and a fireproof vault came through in good condition. This company reports good business, considering conditions, October sales exceeding the combined sales of August and September, and, notwithstanding the interruption by fire, the last month was the best for more than a year.

Has New Business Connection.

Leonard W. Kearns, for some years prominent in the leather belting industry, has become affiliated with the sales organization of the Chicago Belting Company, 113 to 125 North Green St., Chicago, Ill. He is a practical belting engineer, besides having enjoyed marked success in salesmanship.

To Develop Resources and Industries.

Carrington, Rickaby & Milstead, a new firm at San Antonio, Tex., styling themselves business and industrial engineers, will speclalize in developing and financing sound industrial enterprises, etc. They will also undertake trade investigations. John B. Carrington, organizer of the firm, was for nearly twelve years secretary-manager of the San Antonio Chamber of Commerce, covering a peroid of great activity and advancement, in which he acquired first-hand knowledge of industries and resources. S. B. Rickaby, the second member, is a lawyer by profession and had thirteen years experience in financing chambers of commerce and other civic enterprises, while F. D. Milstead, the third member, is an industrial engineer of years of successful practice, having specialized in textiles and having designed, built and installed a number of woolen and cotton mills in the East and the South. He has also built waterworks, steam power plants, etc., and his appraisals have been accepted by banks and bonding houses.

Sales Staff Increased.

The Detroit Seamless Steel Tubes Co.. Detroit, Mich., have again, -since occupying their modern plant,-found it necessary to increase their sales staff, creating the position of assistant general manager of sales and C. C. Rosser, head of the department, has appointed C. H. Hobbs to the new post. Mr. Hobbs has had fourteen years experience with the Lackawanna Steel Co.

Coal, Oil, Limestone and Ore on New Map.

The West Virginia Geological Survey has issued a new edition of its map covering coal, oil, gas, limestone and iron ore. It has been thoroughly revised, showing oil and gas pools, besides many anticlinal lines not heretofore shown, and there is also a booklet giving names and post office addresses of all of the principal coal mining operators in the state up to July 1, 1921. The map which may be obtained from the Survey, Box 848. Morgantown, W. Va., is mailed for \$1, but six may be had for \$5.

THE AMERICAN COTTON OIL CO..

65 Broadway, New York City

November 1st, 1921.

To the Stockholders:
The Annual Meeting of the Stockholders of the American Cotton Oil Company will be held at the principal office of the Company, the Refinery, near Guttenherg, Hudson County, New Jersey, on Thursday, the lat day of December, 1921, at 12 o'clock noon, for the purpose of electing Directors: and of making such amendment, as may be deemed approxing of the acts and transactions of the Directors and of the Executive Committee during the preceding year; and for the transaction of such other business as may properly come before the meeting.

such other dushies as any property of the meeting.

The Prefered and Common Stock Transfer Books with the Prefered and Common Stock Transfer Books with the Prefered on Thursday, the 16th day of November, 1921, at 30 o'clock P. M. and will remain closed until Friday, the 2nd day of December, 1921, at 10 o'clock A. M. By order of the Board of Directors.

BAYDOLD HY CATLIN. Secretary.**

RANDOLPH CATLIN. Secretary

The Oscar T. Smith Company

Manufacturing Bank Stationers 407-9-11 E. SARATOGA STREET BALTIMORE, MD.

OSCAR T. SMITH President

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- —The How and Why of many things should know about stock market transactions,
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- -Trading Fractions,
- -Commission Rates,
- -Deposit Requirements, etc.

Ask for R.D.-30. Mention stocks which interest you.

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National Bank of Commerce in New York

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We want to buy bonds issued by cities, towns, counties, school, road or drainage districts that you may be able to take in exchange for work. Address us at our nearest office.

W. L. SLAYTON & CO.

New Orleans, La. Toledo, Ohio Chicago, Ill. Glasgow. Mont.

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RICHMOND, VIRGINIA

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J. M. MILLER, JR., President.

W. M. ADDISON, Vice-President.

CHAS. R. BURNETT, Vice-President.

ALEX, F. RYLAND, Cashier.

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The Hanchett Bond Co. Inc.

39 SOUTH LA SALLE ST., CHICAGO

WE BUY MUNICIPAL BONDS

We are interested in the purchase of Southern Municipals including road, school, county, drainage and levee bonds.

M. W. ELKINS & CO.

Southern Trust Bldg.

Little Rock, Ark.

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and INVESTMENT OPENINGS, write

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REAL ESTATE & INSURANCE COMPANY BIRMINGHAM, ALA.

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First National Bank Building

CHICAGO

We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.

Write us if you have bonds for sale

\$1,000,000 Export Corporation Formed for Handling and Marketing of Cotton.

Bfrmingham, Ala., November 7-[Special.]-Much interest is being manifested as prospects begin looming up brightly for the Warrant Export and Discount Corporation, recently formed in Birmingham, with capitalization of \$1,000,000 and with Samuel C. Dobbs, of Atlanta as president. The organization, which has for its purpose the facilitating of the handling and marketing of cotton, is already functioning. That the corporation will make possible the shipment of American cotton to European nations, who are at present unable to buy, due to the difference in exchange between the monetary units and that of the United States, is not doubted, a start in this direction having already been made. The corporation proposes to deliver to the European mills cotton, to supervise its manufacture, and then, after the goods have been sold on the world's markets, to make return to the owners here at the least possible cost.

Birmingham will be the headquarters of the concern and there is close affiliation with the Warrant Warehouse Company of Birmingham and Mobile.

Samuel C. Dobbs, the president, is a director in several big concerns in Atlanta. Charles F. Wood, Birmingahm, is vice-president, Cleon B. Rogers, Birmingham, treasurer and W. D. Nesbitt, Birmingham, secretary. The above officers and H. K. Milner, Birmingham, constitute the board of directors.

The announcement is made that contracts have already been struck with the Mautner-Kuffler mills in Czecho-Slovakla, in which it is agreed that 200,000 bales of cotton will be shipped. These mills have an established trade throughout the world, especially in Europe and South American countries and there is a ready market for all of their products. The corporation has established connections in London, Liverpool, Vienna and Prague, and will immediately begin assembling cotton for forwarding to mills in Europe, where cotton will be manufactured under supervision, and in turn the goods sold on the world's market and the returns made to the owners here at the least possible cost of handling, thereby eliminating all commissions, storage charges, brokerage charges, and especially circumventing the terrific load borne by the cotton on account of the price of the American dollar in the European markets. The statement is further made that this will make the difference in exchange an asset rather than an expense to the American cotton growers.

Galveston Attractively Described.

The Annual Trade Edition of the Galveston Daily News, embodied in the October 1 issue of that paper, making a large, fine publication of 72 pages, presents in most attractive, entertaining and instructive manner, facts concerning the progress of Galveston and Galveston County particularly, but also including other places and sections of Texas, due attention being paid to the oil industry which has attained such magnitude during recent years. The entire paper conveys the spirit of energy, ability and advancement and the sections devoted to Galveston city and county are especially fine.

Roanoke Building Activity Increasing.

Roanoke, Va., October 28—[Special.]—Local building conditions are steadily improving in the opinion of contractors here. More building permits are being issued than for many weeks, and during the last 10 days the valuation exceeded \$250,000. Many dwellings are included in the total for last month, and a large amount of money is involved in repairs and alterations to structures of various kinds.

Comprehensive Plan for Tulsa Water Supply.

Holway Engineering Company,

Tulsa, Oklahoma, October 27, 1921.

Editor Manufacturers Record:

On October 24, the report of J. D. Trammell and W. R. Holway, engineers for the city of Tulsa, Oklahoma, on the Spavinaw Water Supply Project, was submitted to the non-partisan water board of the city, and on the day following a mass meeting of citizens was held to hear the report.

Briefly, the plans call for a fifty-five foot dam on Spavinaw Creek, a fifty-five mile conduit which conducts the water by gravity to a point about five miles from Tulsa, where a high pressure pumping station will lift the water 300 feet to a high pressure distribution reservoir four and one-half miles distant on the edge of the city. At this reservoir the water will be aerated and treated with chlorine, after which treatment it will flow directly by gravity into the distribution system of the city. A by-pass is provided so that, in the event this water should ever need filtering, it can be handled at the present plant.

The estimate of cost on this project is as follows:

Dam. Land and Clearing	\$1.132.000
Conduits and Right of Way	4,065,150.
Tiawah Tunnel	225,000.
Mohawk Reservoir & Pump Station	458,000.
Distribution from Mohawk to City	541,000.
Engineering, Plans, Specifications, Inspecton and	
Supervision	321,057.
Administration	57,793.

The engineers on this project are J. D. Trammell, consulting engineer of Forth Worth, Texas and W. R. Holway, President of the Holway Engineering Co.

The City Commission has issued a call for a bond election for this amount to be held on November 29. If this election is successful, the work will proceed immediately.

W. E. HOLWAY.

Industrial Department for Nashville Chamber of Commerce.

Nashville, Tenn., November 1—[Special.]—The Nashville Chamber of Commerce through its board of directors has created an industrial department headed by H. N. Leach as secretary. Its establishment was made possible by a joint arrangement between the Chamber of Commerce and the Nashville Industrial Corporation buyers of the "Old Hickory" Government powder plant near Nashville. The expenses are borne by the Industrial Corporation and efforts will be directed toward interesting new industries in locating at Old Hickory or Nashville.

Grain Elevator Completed.

Waynesboro, Ga., October 31—[Special.]—A complete grain elevator has been finished here. It is expected to be of great service to the farmers of Burke and surrounding counties by taking care of corn, peas and peanuts. Later it is planned to handle other products of the farms of the section. The plant capacity is 15,000 bushels. In connection with the elevator is a grist mill and a feed mill. The plant is electrically operated. The Chamber of Commerce was instrumental in building the elevator.

Charlotte Building Activity Shows Marked Increase.

Charlotte, N. C., October 31—[Special.]—A new high record was established last month when 59 permits involving the expenditure of \$314,495 were issued here. Of this number 40 were for residences ranging in cost from \$1,500 to \$20,000, The largest permit was for the Elks Home costing \$25,000. Most of the new houses are being located in the suburbs.



Bids close November 28, 1921.

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UNITED STATES ENGINEER OFFICE, Baltimore, Md. Sealed proposals will be received here until 1 P.M., November 28, 1921, and then opened, for dredging Baltimore Harbor, Maryland. Further information on application.

Bids close December 1, 1921.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., November 3, 1921. Sealed proposals will be received at this office until 3 p.m. December 1, 1921, and then opened, for furnishing and placing riprap and constructing a pile breakwater at the United States Quarantine Station, Galveston, Texas. Drawings and specificions may be obtained from the Custodian at the Station, or at this office in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

Bids close November 21, 1921.

Bids close November 21, 1921.

PROPOSALS FOR FUEL OIL.—Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 o'clock a.m., November 21, 1921, at which time they will be opened in public, for furnishing the above-mentioned fuel oil. Blanks and information relating to this circular (1461) may be obtained from this office or the offices of the assistant purchasing agents, 24 State Street, New York, and Fort Mason, San Francisco, Calif.; and Fort Mason, San Francisco, Calif.; also from the United States. A. L. Flint, General Purchasing Officer. Officer.

Bids close November 14, 1921.

Bids close November 14, 1921.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., October 31, 1921. Scaled proposals will be opened in this office at 3 p.m., November 14, 1921, for new mezzanine and mailing vestibule, etc., United States Post Office, Roanoke, Va. Drawings and specification may be obtained from the Custodian of the building, Roanoke, Va., or at this office, in the discretion of the Supervising Architect. Jas. A. Wetmore, Acting Supervising Architect.

Bids close December 2, 1921.

Bids close December 2, 1921.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., November 5, 1921. Separate sealed proposals will be opened in this office at 3 p.m., December 2, 1921, for kitchen equipment; installation of two electric elevators in main hospital building; sterilizers; hydrotherapeutic equipment, etc.; and an ice making and refrigerating plant in the main hospital building for the U. S. Public Health Service Hospital, Norfolk, Va., Tanner's Creek Site. Drawings and specifications may be obtained at this office in the discretion of the Supervising Architects. Jas. tion of the Supervising Architects. Jan A. Wetmore, Acting Supervising Architect.

Bids close November 21, 1921.

\$50,000 6% Highway Serial Bonds

\$50,000 6% Highway Serial Bonds
LEWIS COUNTY, TENNESEE.
Hohenwald, Tenn.
The undersigned will receive sealed bids
at his office in Hohenwald, Tennessee, until
1:45 o'clock, p.m., Monday, November 21,
1921, for the purchase of the following six
per cent (6%) bond issue of Lewis County,
Tennessee, denomination \$1000, issued for
the purpose of providing means for the
payment of the county's one-third of the
estimated cost of certain State and Federal
Aid Highway improvements. Bonds dated
November 1, 1921, principal and semi-annual
interest (May first and November first) payable at the County Trustee's Office in Hohenwald or at the Fourth and First National
Bank at Nashville, Tennessee, at holder's
option; bonds maturing November 1st, annually, as follows:

 $\begin{array}{c} \$2.000.00,\ 1922;\ \$2.000.00,\ 1923;\ \$3.000.\\ 00,\ 1924;\ \$3.000.00,\ 1925;\ \$3.000.00,\ 1926;\\ \$3.000.00,\ 1927;\ \$3.000.00,\ 1928;\ \$3.000.00,\ 1931;\ \$2.\\ 000.00,\ 1932;\ \$2.000.00,\ 1933;\ \$2.000.00,\ 1934;\ \$2.000.00,\ 1934;\ \$2.000.00,\ 1935;\ \$2.000.00,\ 1936;\ \$2.000.00,\ 1937;\ \$2.000.00,\ 1938;\ \$3.000.00,\ 1939;\ \$3.000.00,\ 1940;\ \$3.000.00,\ 1941. \end{array}$

1939; \$3,000.00, 1940; \$3,000.00, 1941.

These bonds are declared by law to be an absolute and general obligation of Lewis County and general tax levy for their payment is required by law not exceeding 100 cents on the \$100, at the assessed valuation for the year of authorization. Bonds registerable as to principal at the Fourth and First National Bank at Nashville, or at the Trustee's Office at Hohenwald, Tennessee; the legality of same will be approved by A. G. Ewing, Jr., Attorney of Nashville, Tennessee, whose approving opinion will be furnished purchasers without charge; neither the principal nor the interest of said bonds will be taxed by the State of Tennessee or by any County or Municipality thereof.

All blds must be upon blank forms which

All bids must be upon blank forms which will be furnished by the undersigned and all bids must be accompanied by a certified check upon a national bank, or upon any bank or trust company in Tennessee, for \$1000.

The bids will be delivered at the Fourth and First National Bank at Nashville, Tennessee, at 12 o'clock, noon, December 6th, 1921, or at Hohenwald, Tennessee, on December 6th, 1921.

The right to reject any and all bids is expressly reserved.

Hohenwald, Tennessee, Lewis County, October 31st, 1921.

Clerk of the County Court of Lewis County, Tennessee.

Bids close November 15, 1921.

\$75,000 5, 5½ or 6% School Bonds

Vinion, South Carolina
Notice is hereby given, that the Trustees
of Union District No. 11, Union County,
South Carolina, will receive sealed bids for
the purchase of Seventy-Five Thousand
(375,000.) Dollars par value of Union School
District No. 11, Union County, South Carolina, School Bonds, up to 12 o'clock noon,
Tuesday, November 15th 1921, at the Bank
of Union in Union, S. C.
The shows honds are offered for sale pur-

The above bonds are offered for sale pursuant to power and authority contained in an Act of the Legislature of South Carolina, approved the 7th day of March 1921, 32d Statutes at Large, page 743.

Said bonds will be deted Inpursy Let

32d Statutes at Large, page 743.

Said bonds will be dated January 1st, 1922, and will be in denominations of \$1000 and will bear interest at the rate of 5%, 5½% or 6% per annum, payable semi-annually on the first days of January and July in each year. Said bonds will mature as follows: \$1000 January 1st, 1923; \$1000 January 1st, 1924; \$1000 January 1st, 1925; \$1000 January 1st, 1927; and \$2000 on each succeeding January 1st thereafter until January 1st, 1962.

They will be exempt from State, County and Municipal taxes. Each bid must be accompanied by certified check for the amount of \$1000 as a guarantee that the successful bidder will receive and pay for said bonds upon delivery, unless same are rejected on legal grounds,

Bids are invited on said bonds at the different rates of interest above specified. The School Trustees reserve the right to reject any and all bids.

By order of the Board of School Trustees said District.

C. T. MURPHY. Chairman.

C. C. Sanders, Clerk.

Bids close December 6, 1921

GOOD ROADS

\$100,000 51/2 % Road and Highway Bonds

Bonds

POLK COUNTY, GEORGIA
Cedartown, Ga.
Sealed bids will be received by T. W.
Schliestett, Clerk, until noon Tuesday, December 6th, 1921 for \$100,000 5½% coupon bonds dated January 2, 1922, maturing January 1, 1947; denomination \$1000; semi-annual interest payable January and July. Bids for all or any portion of issue will be considered. Certified check for 2% of bid must accompany each bid. County will bid on \$3000 of bonds to invest sinking fund. Principal and interest payable in gold at National Bank of Commerce, New York City. Legal opinion of Caldwell & Raymond, New York City, approving validity of issue, will be furnished purchaser. for further information apply to
JOHN K. DAVIS,
Chairman.
Cedartown, Ga.

Population of County 1920

Bids close November 23, 1921.

Notice

GENERAL CONTRACTORS. HEATING CONTRACTORS PLUMBING CONTRACTORS. ELECTRICAL CONTRACTORS.

Scaled proposals will be received by the Board of Trustees of the Wilson North Carolina Graded School District, Wilson, N. C., at the office of C. L. Coon, Superintendent of Schools at Wilson, N. C., until 2 o'clock Noon, November 23, 1921, and then opened for the erection and completion of a High School building in the City of Wilson, N. C.

then opened for the erection and completion of a High School building in the City of Wilson, N. C.
Drawings and specifications may be seen at the office of CHAS. C. WILSON, ARCHITECT, 105 Davis Building, Wilson, N. C., 208 First National Bank Building, Gastonia, N. C., 804-7 Palmetto Building, Columbia, S. C., and also in the offices of the Builders Exchange in Atlanta, Ga. and Columbia, S. C., and in Charlotte, North Carolina, Chamber of Commerce, and may be obtained upon application to the office of the Architect, 804-7 Palmetto Building, Columbia, S. C. upon a deposit of \$25.00 as a guarantee that they will be returned in good condition and without expense not later than the date set for the opening of the bids, and that a bona fide bid is filed. Deposit will be returned when above conditions have been compiled with, otherwise, it will be retained by the architect. Additional sets will be furnished upon request at a charge of \$15.00. will be fur of \$15.00.

Sub-contractors or material men who de-sire to submit bids to general contractors may secure such portions of plans and specifications as they may desire from the Columbia office, at current prices for blue

SEPARATE CONTRACTS
The following separate contracts will be

made:

No. 1. General Contract covering erection
and completion of building.

2. For the installation and completion
of the Heating and Ventilating Plant.

3. For the installation and completion
of all Plumbing.

4. Installation and completion of all
Electrical work of every description.

5. To furnish and install all Equipment

of every nature.

6. All outside walks and steps from street to terraces.

The right is reserved to reject any or all

T. F. PETTUS, Chairman Building Committee.

Reinforced Concrete Arch Bridge.

STATE OF MARYLAND STATE ROADS COMMISSION NOTICE TO CONTRACTORS

Sealed Proposals for building the follow-

Sealed Proposals for building the following bridge:
HARFORD COUNTY—CONT. No. H-29:
Double 54'-0" Span Reinforced Concrete
Arch Bridge Over Little Gunpowder Falls,
between Baltimore and Harford Counties
on the Belair Road, including earth fill
and removal of present truss bridge.
Will be received by the State Roads Commission, at its offices, 601 Garrett Building,
Baltimore, Maryland, until 12 M. on the
22 day of November 1921, at which time
and place they will be publicly open and
read.

read.

Bids must be made upon the blank proposal form which, with specifications and plans will be furnished by the Commission

plans will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted. No bids will be received unless accompanied by a certified check for the sum of five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland, respecting contracts.

General Assembly
contracts.

The Commission reserve the rights to
reject any and all bids.

BY OKDER of the State Roads Commission this 7 day of November 1921.

L. H. STEUART. Secretary.

J. N. MACKALL, Chairman.

Bids close November 29, 1921

Paving, Sewers, Etc.

Paving, Sewers, Etc.

Wilmington, N. C.

Sealed proposals will be received until
three o'clock p.m., November 29th, 1921,
at the office of the Commissioner of Public
Works, Wilmington, N. C. for the construction of approximately ninety thousand
square yards of either sheet asphalt, asphaltic concrete, bituilthic, Kentucky rock, brick
or concrete pavement, with storm sewers and appurtenances.

Each bid shall be accompanied with a certified check to the amount of 5% of the bid. Plans and specifications are on file with R. C. Cantwell, Commissioner of Public Works, and with the Engineers. Copies of these will be furnished on request, and a deposit of \$5 will be required on specifications and \$10 on the plans. These amounts will be refunded upon return of the plans and specifications. the plans and specifications

e plans and specifications.

R. C. CANTWELL

Commissioner of Public Wor

he Carolina Engineering Company,

Wilmington, N.. C., Engineers.

Bids close November 15, 1921. Macadam Road

Macadam Road

OFFICE OF THE VIRGINIA STATE HIGHWAY COMMISSION.

116 So. Third St., Richmond, Va.
October 31, 1921.

Bids will be received at the Office of the
Virginia State Highway Commission, 116
South Third Street, Richmond, Va., until
12 o'clock Noon, Tuesday, November 15th,
for construction of section of State Road:
Virginia Project No. 128-A, 6.19 miles
of waterbound macadam road with alternate bid on bituminous macadam on State
Road No. 23, between Ripulemed and

nate bid on bituminous macadam on State Road No. 23, between Ripplemead and Hoge's Store in Giles County.

Engineer of State Highway Commission will meet prospective bidders at Pearisburg at 9:00 A.M. Thursday, November 10th to show them over the work.

Plans and specifications are on file at Office of Virginia State Highway Commission, 116 So. Third Street, and at office of Resident Engineer at Roanoke.

Plans will be sent upon receipt of check for \$5.00, made payable to the Second Assistant Commissioner, \$2.50 of which will be returned when plans are returned in good condition within ten days after bids are opened.

opened.

A certified check for 5% of the amount of the estimated cost of the work, not to exceed \$5000, made payable to the State Highway Commissioner, must accompany bid on each section of road.

The State Highway Commissioner reserves the right to reject any or all bids.

G. P. COLEMAN,

State Highway Commissioner.

Bids close November 16, 1921

Arts Building, Power House, etc. RICHARD J. REYNOLDS HIGH SCHOOL WINSTON-SALEM, NORTH CAROLINA.

Scaled proposals, addressed to James G. Hanes, Mayor, will be received by the City of Winston-Salem, North Carolina, for the construction of the Academic Arts Building, Power House and other work, in connection with the above High School.

Proposals will be opened in the Office of the Mayor at 3:00 P. M. on Wednesday, November 16th...

November 16th..

Plans and Specifications may be obtained from the Office of CHARLES BARTON KEEN, Architect, 1218 Chestnut Street, Philadelphia, Pennsylvania, upon receipt of a deposit of THIRTY DOLLARS (\$30.00), of which TWENTY DOLLARS (\$20.00) cost of blueprinting plans and speci-

Proposals must be accompanied by a certified check, to the amount of TWENTY FIVE THOUSAND DOLLARS (\$25,000.00) which will be forfeited to the City of Winston-Salem, if successful bidder fails to sign contract and furnish bond within fifteen (15) days after notice of award of Contract. Checks of unsuccessful bidders will be returned after bids are opened.

Separate proposals will be received for the installation of Boilers, Heating and Ventilating Systems. Proposals will be opened on the aforesaid date and place.

These Plans and Specifications may be obtained from the Office of WILEY AND WILSON, Consulting Engineers, LYNCH-BURG, VIRGINIA, upon receipt of check for TWENTY FIVE DOLLARS (\$25.00), which will be refunded when drawings are returned to Engineers.

Proposals for this work must be accom-panied by a certified check for TWENTY FIVE HUNDRED DOLLARS (\$2500.00), which will be forfeited to the City of Win-ston-Salem, or returned to the bidder as set forth above.

The City of Winston-Salem reserves the right to reject any or all proposals sub-



CLASSIFIED OPPORTUNITIES



FOR SALE—84 acres with large stone bluff, on C. & O. Ry. Stone suitable for building, ballast or concrete. Convenient location for quarry. Fifty acres young timber. Box H. Irwin, Va.

FOR SALE-239 acres proven gold and platinum dirt, five to fifty dollars per ton, placer and quartz mining. Price \$30,000.
O. M. Alexander, Anniston, Alabama.

FULLERS EARTH

FOR SALE—200 Acres Fullers Earth Land. Located in Manatel County, Fla. If interested write to the owner, J. Rothman, P. O. Box 2521, Tampa, Fla.

CLAY PROPERTIES LARGE BRICK CLAY PROPERTY.

LARGE BRICK CLAY PROPERTY.

Favorably located directly on railroad and on bricked highway, eight miles wost of Newberne, N. C.; adapted for highgrade brick, tile and other clay products. Has been examined and recommended by an eminent engineer as being unusually meritorious. Report will be furnished to interested parties. Owners will accept part payment in securities of properly financed and managed company. Thomas B. Hammer, Owner, Philadelphia, Pa.

RATES AND CONDITIONS

Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: invarably cash with order; check, post-office or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is excluding undesirable advertisements is exquested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c. per line; 300 lines, 28c. per line; 500 lines or more 25c. per line.

WE HAVE, in South Texas, practically unlimited supply of fine grade Silfca which Government Chemist advises is best grade in United States. Wonderful base for manufacture of metal polishes tooth paste. nall polish, mechanics soap, etc. Will sell as whole or on contract. G. A. Gandre, 321 Union Station, Houston, Texas.

STONE QUARRY

FOR SALE OR LEASE—One of the oldest Quarries in Texas, Unlimited amount of Fine Building Stone. Has always been a Money Maker, Owner has to retire on account of ill health, Will not require large capital. Address, G. T. Allen, Leander, Texas.

OIL AND GAS LANDS

NENTUCKY OIL PROPERTY.

now producing, capable of expansion to 150 barrels of oil per day, settled production, for sale account sickness of owner. The property is on Pipe Line, has gas and water for complete development, four wells finished, fifth started, contains 66 acres in Magoffin County, Ky. Will net 50% annually. Price \$65,000.00. Details, and shown by request to undersigned. P.O. Box 274, Lexington, Ky.

COAL

AVOID COAL shortage and high prices later. Buy coal from us now and save money. Can furnish smokeless, splint, gas, by-product for your plant, home or retail yard. Write or wire for prices. MOORE & HETZEL, Charleston, W. Va.

WE WILL handle coal among our large wis will handle coal among our large connection if we can get right mines. Will use Detroit office for coal. Mines we patronize must help on preliminary work and advertising. Not over \$5000 required. Only mines with large output and good rec-ords will be considered. Central Logmen's Bureau, 215 N. 11th St., Columbus, Ohio.

COAL LANDS AND MINES

FOR SALE—2500 acres unimproved coal land in tracts, \$35 per acre; has several seams; top drift; adjacent railroad, mines, gas and oil. Write Cavanagh, McAlester, Okla.

COAL AND TIMBER LAND

FOR SALE—80,000 acres Coal and Timber Land. Tennessee. Railroad. High grade coal. Good timber, \$7 per acre. P. D. Armstrong, Alton, Ill.

921.

etc.

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CUT OVER LAND WANTED

WANTED-5000 to 30,000 acres cut-over land. Suitable for farm colony. Owners only. Address No. 5914 care Manufacturers Record, Balto., Md.

TIMBER LANDS WANTED

WANTED-Timber lands and income properties. Any size, anywhere. Write Chas. A. Phildius, 510 E. 120 St., New York.

TIMBER LAND

TIMBER LAND

14,938 ACRES in fee on Apalachicola River in Florida. Thirty-five million feet Cypress Oak, Ash and Gum. Price \$7.00 per acre. Terms to responsible parties. Thirty Million feet high grade Cypress, Poplar, Oak, Ash, Gum and Pine on Flint River in Georgía unlimited amount can be added direct from owners at a low price. Best mill location in State. Price \$75,000.00 on terms. Reason for selling have ten years cut for our mills other than these tracts.

tracts.
REYNOLDS BROS. LUMBER COMPANY
ALBANY, GA.

HARDWOOD TIMBER LANDS offered for 60 days at about half price. Urgent ne-cessity compels this sacrifice. I own 14,-500 acres in two boundaries and an com-pelled to sell this property before Jan. 1st, 1922. Address No. 5905, care Manufac-turers Record, Baltimore, Md.

VIRGINIA HARDWOOD TIMBER AND LAND FOR SALE

60,000 acres Southern hardwood timber;
5000 feet per acre; two railroads and river through land; level black lime soil, good drainage; price, \$10 per acre; one-fourth cash. Write for full description. Leavitt Land Co., Indianapolis, Ind.

CHEAP TIMBER LANDS.

We have timber lands, well located. At prices cheaper than pre-war prices. One especially attractive tract for Mine-props or keg staves. 575 acres all in growing timber. GOOD INVESTMENT PROPOSITIONS.

BATTE & BROWDER.

Jarratt, Va.

TIMBER

TIMBER FOR SALE.

From twenty to one hundred and fifty million feet, in separate tracts, of pine and of hardwood. Deal direct with owner. J. W. Barnes, Savannah, Ga.

LATH AND TOBACCO STAVE TIMBER FOR SALE—10,000 to 15,000 cords standing timber on N. S. R. R., near Newbern, N. C. Will sell by the cord with cash advance. Fine opportunity for laths or tobacco stave factories. Thos. B. Hammer, Phila., Pa.

TIMBER FOR SALE 200,000,000 feet virgin yellow pine. Maurer & Company, Orlando, Florida.

TIMBER OPERATIONS

FOR SALE—Lumber milling proposition, complete equipment, now in operation, Eastern Carolina; 25,000,000 feet timber: plenty more available; big bargain; \$175,000, half cash, balance terms. Address No. 5700 care Manufacturers Record, Balto, Md.

FOR SALE GEORGIA SHORT LEAF PINE FOR SALE GEORGIA SHORT LEAF PINE,
40 million feet exceptionally fine grade
short leaf roofer timber three portable saw
mills 30 thousand capacity planing mills and
all necessary logging equipments good organization now running full capacity with over
one million feet dry roofers on hand ready
for immediate shipment. Located near two
main line Railroads. 20 to 30 million feet
more timber can be secured near by undoubtedly the best roofer proposition in Georgia.
A very attractive price for quick sale or
would sell one half interest to acceptable
purchaser. P. O. Box 604 Macon, Ga.

SUBURBAN PROPERTY

FOR SALE
97 acres adjoining the City of Roanoke.
Best lot sub-division; big money-maker;
good terms act quick. Address No. 5876
care Manufacturers Record.

FARM, FRUIT AND TRUCK LANDS

FLORIDA

FLORIDA LANDS
FOR SALE—5000 acres high class grove
and trucking land, \$10. acre. Artesian well.
All kinds lands, timber tracts, groves, etc.
Maurer & Company, Orlando, Florida.

FOR SALE—I can sell you sugar lands, orange and grape-fruit groves, truck and farm lands improved and unimproved, city-resort lots, winter homes up to \$100,000; thousands of acres of cut-over lands. Write Sadler, Nurseryman, Box 866, West Palm Beach, Fla.

10,800 ACRES OF FERTILE FLORIDA
LAND FOR SALE
Tract 15 miles from Truck-growing community where crops valued at \$1000 and more per acre are grown. Property fenced, flowing wells. Three miles to railroad. Low price and reasonable terms. For full parameters of the contract of the contrac

price and reasonave ticulars address THE PUTMAN COMPANY Daytona Beach, Fla.

Orange Winter Rentals Farms
Development properties

FLORIDA LAND—A big pick up 15,000 acres cut-over land only \$4 an acre, if interested and mean business communicate with Jno. W. Pelot, Arcadia, Florida.

COME TO FLORIDA—Where "it's summertime in the wintertime and pleasant all the year 'round." We have a home, grove or truck farm for you; send for new booklet with general information about Tampa and Florida, and list of properties we have for sale. Tampa-West Coast Realty Co., (Inc.) Opp. Post Office "Since before the War", Tampa, Florida.

LOUISIANA

FOR SALE—109 acres of Red river land, all in cultivation, with 20 acres already sown in alfalfa, situated both on trunk line railroad and gravelled highway, with railroad station and side tracks; only twenty-five minutes drive from Alexandria, a city of 20,000 people; splendid improvements; land suitable for corn, cotton, affalfa and other crops; good site for store and dairy; unusual opportunity for man with the grit, energy and determination to succeed. See or write G. C. Boyd or J. W. Hawthorn, owners, 312 Guaranty Bank Building, Alexandria, La.

MEXICO

GOOD Sugar, cotton and corn land, in ample rainfall district of Mexico, at \$3.50 acre; agents wanted. H. F. Clawson. Box 778, San Antonio, Tex.

NORTH CAROLINA

FOR SALE—Twenty-eight acres of beautiful, level land, except about eight acres in bottom meadow and timber; 5-room house, barn, well, branch, 75 old and young peach, apple and pear trees; on public highway; daily mail route; two miles from Charlotte, N. C.; ideal place for truck, poultry and dary business. Terms. H. C. Shoaf, Route 8, Charlotte, N. C.

SOUTH CAROLINA

FOR SALE—Cheap, and on 15 years' time at 7% interest, one of the best big farms in the famous Piedmont section of South Carolina. This farm is located just three miles south of the prosperous little town of Jonesville. S. C., on the Southern railroad, and only 30 minutes from the city of Spartanburg on a good top soil road. It contains 600 acres of exceptionally fine soil, dark chocolate, with clay sub-soil. Has 300 acres in cultivation. Has 150 acres of fine bottom land, not cleared; 125 acres in timber, remainder in pasture. Has a main dwelling, good barn and eight tenant houses, all in fair condition. This property is well located either for general farming, dairying or cattle raising. For quick sale and transfer. \$75 per acre. C. W. Merritt & Co., Spartanburg, S. C. Phone 1816.

FARM FRUIT, AND TRUCK LANDS

SOUTH CAROLINA

FOR SALE-600 acre farm 2½ miles from a station on Southern Railway, in Newberry County, S. C. This farm has 300 acres in cultivation; has beautiful old homestead, eight tenant houses, all in fair condition. 300 acres in pine timber, estimated to cut two million feet. In addition to saw timber there are thousands of cords of pulp and cord wood, with a down hill pull. This is not only a splendid farming proposition, it is a sound business investment, as well, as the timber and improvements are worth more than the price we are asking. If interested, write us for terms, and further information. Price \$35 per acre. C. W. Merritt & Company, Spartanburg, S. C.

TENNESSEE

FOR SALE—One acre of land with good 5-room frame dwelling, good barn, fine well, fruit trees, this property is especially adapted for a physician, splendid location, the community is in need of one. Price \$2000. FARMS of all sizes for sale, fine section of country, land level and productive, strawberry culture very profitable, from \$300.00 to \$500.00 per acre is realized, land sells from \$40.00 to \$200. per acre. F. C. Enders, Portland, Tenn.

VIRGINIA

A MONEY MAKING FARM AT A BARGAIN
550 acres located 12 miles from Lynchburg, Virginia. The soll is fertile and productive; 400 acres under high state of cultivation and pasture; balance timber. Gently rolling and well watered. It can be worked to advantage with modern machinery.
500 bearing apple trees and variety orchard of other fruits. Good 11-room frame dwelling, supplied with running water and gas lights. Large cow barn; stable; 100-ton silo; garage; 3 good tenant houses and all other necessary outbuildings. Priced low at \$60.00 per acre. Oglesby Real Estate Agency, Lynchburg, Va.

BUSINESS OPPORTUNITIES

FOR SALE—A new and up-to-date stock, will invoice \$15,000 or more of Gent's furnishings and shoes; bought on late market at right prices, store room 35x95; best location, on 7th Are., Ybor City, Tampa; six-year lease at low rents; reason for selling poor health; if interested investigate my sales for the past few months. J. Rothman, P. O. Box 2521, Tampa, Fla.

FOR SALE—A going business in Virginia in the form of stone crusher and ballast plant; running every day and plenty of orders on hand; big railroad trade; business running \$4,000 per month and better with a \$1,000 to \$1,200 net profit; plant in excellent condition; heavy crushers set on concrete base; new screen-house built of oak timber about 55 ft. high, plenty of switches and side tracks to handle the output. Good small general store that pays a nice profit goes with property. Several houses for workmen, plenty of labor at reasonable wages. Owner has other business which necessitates his selling. Price \$28,000. Cash payment and easy terms takes possession. Will bear most rigid investigation. Man of average ability can step right into a profitable business and make money from the start. Chas, L. Henck Co., Knoxville, Tennessee.

HICKORY, N. C. offers Many Advantages to Manufacturers. Also Water Power Sites. Write Chamber of Commerce.

PATENT FOR SALE.

It has been proven by Government tests that the most effective means of combatting the boll weevil is by pulling stalk, root and all in the fall and burning, doing away with the winter harbor of weevils in the field. Above patent is on article that can be used by same labor that picks and chops the crop, that is women and children who can easily remove the stalks with this small article with handle similar to hoe handle. Inexpensive to manufacture and should be as common on cotton farm as hoes and plow shares.

Will sell patent outright or with cash payment and royalty. T. H. Monk, 225 N. W. First Court, Miami, Fla.

BUSINESS OPPORTUNITIES

SILENT PARTNER with \$3,000 to \$5,000 to be used in financing Farm Light and Water Systems to farmers, also the sale of gas and oil filling station with auto supplies as a side line. Good rate of interest allowed. Address No. 5898 care Manufacturers Record, Balto., Md.

RIGHT PARTY with capital can acquire interest in large hardware and mill supply company in growing Southern seaport. Must be experienced, progressive and with good executive ability, taking active part in the management as head of accounting or sales departments. Address No. 5909 care Manufacturers Record, Balto., Md.

HAVE a manufacturing proposition of great merit for which I wish to organize and sell territory. Would like to get into communication with a broker or live sales organization to organize and dispose of states. John E. Robbins, Greensburg, Ind.

MY ASSOCIATIONS with responsible New York Underwriters enables me to prepare your propositions in a manner which will demand their serious consideration. Attorney Alfred S. Perry, Fairfield, Conn.

FOR SALE—Lumber Milling Proposition, 5,000 acres in fee, complete equipment, now in operation. West Virginia. 15,000,000 feet of timber, 500,000 feet now on stick. This property will be sold at a bargain. Address Jno. C. Chidester, Weston, West Virginia.

BANK & LANDS—Controlling interest in going Natl bank, minor interest in 6 nearby banks, owners beautiful residence. Will in-clude several fine farms. Address J. L. McKamey, Imboden, Lawrence Co., Ark.

Water works and electric plant to supply water and light to the suburb of a large City. Fine proposition. Address No. 5875 care Manufacturers Record.

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Washington, D. C.

M. B. HARLOW. Harlow Building. Alexandria. Va. Colorado Building. Washington, D. C.

WANTED-A good-sized block of high-grade stock of exceptional earning possibili-ties to market among our large clientele. Money must be for expansion. Wiers & Co., 115 Broadway, New York Established 1894.

LUMBER AND BUILDING MATERIAL

LUMBER FOR SALE—We have 40 million feet very fine Georgia short leaf pine timber well equipped 30 thousand capacity saw mills and planing mills now running full capacity with well organized force. Over one million feet dry roofers on sticks ready for immediate shipment. Would consider forming connections with reliable firm to handle our entire output at a contract price or commission basis who can advance \$75,000,00 to be paid back as lumber is shipped. Loan secured by entire holdings worth over \$200,000.00. Can arrange personal interview any time. Address C. Ben. Smith, Wayside, Ga.

WHEN IN NEED of flooring, ceiling, siding, finish, roofers, lath, shingles and dimension: write Stephens Lumber Co., Jacksonville, Fla.; 50 E. 42d St., New York city or Hibernia Bank Bldg., New Orleans, Ls.

YELLOW PINE LUMBER

From smallest mouldings to heaviest structural timbers: framing, flooring, ceiling, siding, finish, roofers, lath. In straight or mixed carload shipments. Let us quote you on your next bill.

C. G. HULL LUMBER COMPANY,
Laurel, Mississippi

TIES, HANDLES, BLANKS, ETC.

FOR SALE
30,000 hewn ties, axe and plow handle
blanks doubletree and neckyokes and all
kinds rims in hickory and oak.
B. H. TROXEL, Ravenden Springs, Ark.

ADVERTISING AND LETTER WRITING

YOU CAN SECURE EVIDENCE THAT Conrad Richter constructs letters, circulars, booklets, advertisements, for cilents who DEMAND profitable inquiries, orders, repeat orders, with or without drafts, checks, cash. Ask for The Evidence, a complimentary text booklet on Sales Writing that is, increasing many manufactures' business. It will increase YOUR business. Write for it. Conrad Richter, Reading, Pennsylvania.

PATENT ATTORNEYS

INVENTORS—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for patent. Book. "How to Obtain a Patent," sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years, Chandlee & Chandlee, 412 7th St. N. W., Washington, D. C.

PATENTS. TRADE-MARKS AND COPY-RIGHTS.—Write for our Free Illustrated Guide Book and EVIDENCE OF CONCEPTION BLANK. Send model or sketch and description of your invention for our pinion of its patentable nature free. Highest references. Prompt service, Reasonable terms. Victor J. Evans & Co., 712 9th St., Washington, D. C.

PATENTS.—Booklet free. Highest references. Best results. Promptness assured. Watson E. Coleman, Patent Lawyer, 624 FSt., Washington, D. C.

JACK A. SCHLEY. Patent and Trade-Mark Attorney, 306 Interurban Building, Dallas, Tex. 319 McGill Building, Washington, D. C.

PATENT-SENSE. "The Book for Inventors and Manufacturers."
FREE. WRITE
LACEY & LACEY,
Oept. 15, Washington, D. C. Established 1869

BUSINESS PROPERTY

WASHINGTON, D. C. WE SPECIALIZE IN

Choice Chain Stores, Railroad Sidings and Warehouses. Business Properties.

WEAVER BROS., 785 15th Street N. W.

FACTORY SITES

RICHMOND, VA.—Factory or Warehouse sites, most any size parcel, with railroad trackage along side, or between buildings, as desired. Convenient to depots for local shipments. Close to street car service.. Labor plentiful and good type. Let us show you. Richmond Trust Co., Richmond, Va.

BALTIMORE

FACTORY

SITES

William Martien & Company. 1413 Lexington Bldg., Baltimore, Md.

MERCHANDISE WANTED

SPOT CASH for surplus merchandise job lots, close-outs, discontinued lines, goods-ordered-and-left-on-hand, etc. (no machin-ery). No quantity too large. Quick cash for real bargains. Fantus Bros., 529 S. Dearborn, Chicago, Ill.

PRINTING AND EMBOSSING

BETTER PRINTING for less money. Printing users send for free samples and standardized prices of a thousand items. E. Fantus Co., Printers 523 S. Dearborn St., Chicago, Ill.

INDUSTRIAL PLANTS FOR SALE

FOR SALE—Side cut brick plant. The only one within eighty miles. Everything in first class condition. Cannot near fill the demand. Brooks Long Brick Co., Jack-

FOR SALE—Planing and re-milling plant. In yellow pine district on Atlantic seaboard. Capacity 80,000 feet per day. Enjoying annual retail business of \$400,000 in one of South's largest cities. An old established enterprise which owner desires to sell and retire. Address No. 5913 care Manufacturers Record, Balto., Md.

SAW AND PLANING MILL ETC.

FOR SALE—Complete saw mill, planing mill and dryer; 50M capacity mill; 25M capacity planer; 50M capacity mill; 25M capacity planer; 50M capacity dry kilns; 25 miles steel railroad and equipment; 2 Baldwin locomotives; logging carts; 42 head mules; 15 million feet pine timber. This outfit can be bought cheap and the mill is new band saw mill. Write for full information as to price and terms to J. F. Stebbins, Zephyrhills, Fla.

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FOR SALE—Industrial plant located on main line Southern Railway in city of High Point, N. C. Consists of several acres of land, two spleudidly constructed factories, engine room, drying plant and equipment new machinery. Primarily a furniture factory, but well suited for any furniture specialty. Address Atlantic Bank & Trust Co., Greensboro, N. C.

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FOR SALE—Sand Plant. In first class working condition. Economical to operate. Two men operate it. Dredge boat used on river with pump. On top, stiff leg Derrick, one yard clam shell dipper, conveyor belt for loading cars. Big trade territory to cover. Cheap Gas and motor power for fuel. Price \$10,000—Easy terms. Apply to Burke Andrus Sand Co., Ft. Smith, Ark.

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SOUTHERN COTTON MILLS.
We have for sale two cotton mills.
One of 40,000 spindles,
One of 4200 spindles.
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UNUSUAL OPPORTUNITY—Complete tight barrel heading plant in good condition located in Lousiana town of forty thousand—plenty cheap timber—will sell liberal terms to right parties—For sale and owned by a bank able to finance proposition. Address No. 5889, care Manufacturers Record, Balto.,

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OUR PROPER PERMANENT POLICY
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BALTIMORE newspaper man wants spare-time work, representing manufacturer; knowledge Maryland and Washington. Wide experience. Address No. 5916 care Manu-facturers Record, Baltimore, Md.

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HIGH CLASS MEN WANTED
Employers in almost every industry are
seeking men of real ability for positions
of responsibility. Our modern, confidential,
effective service finds these openings for
you. Send name for details. The Cleveland Vocational Bureau Company, 424
Bulkley Building, Cleveland, Ohio.

MEN WANTED

WANTED—High-Grade specialty salesman of demonstrated earning power with execu-tive ability and some capital, to handle exclusive territorial distribution of equip-ment sold through executives. Address No. 5915 Manufacturers Record, Balto., Md.

WANTED—High class salesman to sell lumber, timbers, piling, ties etc. to the railroads and mines of United States. Must have necessary experience and good papers. Concern is old well rated company with headquarters in Texas and operating in East Texas and Louisiana. Send papers first letter and state salary desired. No. 5912 care Manufacturers Record, Balto., Md.

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experience and ability entities them are
invited to communicate with us. Our
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the position of having responsible employers
bid for your services—this without the
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MARINE ENGINE and Boat Exchange— Do you want to buy a boat or marine en-gine? Do you want to save money on this purchase? We carry in stock boats and purchase? We carry in stock boats and engines, both new and rebuilt and sell at bargain prices. Please write us your wants. J. L. Scott, Boat & Engine Exchange, 236 S. W. North River Drive, Miami, Fla.

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300 TONS PRIME TIN PLATE, \$4.00 per 100 lbs. 300 TONS PRIME GALVAN-IZED SHEETS, \$3.00 per 100 lbs. 300 TONS BLACKSHEETS, \$2.00 per 100 lbs. 300 tons Steel Bars, \$1.00 per 100 lbs. Wire your orders before the stock is gone. WERNER, 70 PLINY ST., HARTFÖRD, CONN.

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CHAMBER OF COMMERCE

21.

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Also All the Machinery

including 1½ ton electric furnace, electric annealing furnace, core ovens, compressors, moulding machines, vibrators, mixers, grinders, motors, etc., being full equipment for the manufacture of steel castings. Further particulars from the undersigned Receivers.

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Also planers, millers, grinders, punch presses, etc.

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1-38" x 14' engine lathe,

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1-3' Plain Radial Drill,

latest type,

-25" x 10' engine lathe,

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35,000 GAL. FLATBOTTOM STEEL TANK WITH 60 FOOT STEEL TOWER WILL SELL CHEAP.

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One second hand Crude oil Marine Engine, 60 to 75 h.p. Must be in first class condition and cheap.

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Three lighters of 500 tons capacity each, also one small steam Tow Boat, 60 feet long, 75 h. p. All in first class condition and cheap.

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For Oil	Storage and	Similar Lie	uids.	
		ng. 500	gallons.	
50" dia. x		ng, 1,000		
84" dia. x.	32' 84" k	ng, 10,000	gallons.	
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76" dia, x		ng. 10,000	gallons.	
112" dia x		ng, 7,500	gallons.	
112" dia, x		ng. 10,000	gallons.	
120" dia, x		ng, 6,000	gallons.	
120" dia x		ng, 8,000	gallons.	
		ng. 9,000	gallons.	
120" dia x		ng. 12,000	gallons.	
120" dia x		ng, 15,000	gallons.	
120" dia, w		ng, 16,000	gallons.	
120" dia, x		ng. 18,000	gallons.	
120" dia x		ng, 20,000	gallons.	
		ng, 21,000	gallons.	
120" dia, x		ng, 24,000	gallons.	
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102" dia. x 24' 6 " high, 10,000 gallons. ALL NEW

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 10 14 in. Worthington, Class B double suction,
 8,600 G.P.M. at 152 feet head, at 1170
 W.P.M. direct connected to 300 H.P. General Electric, 3 phase, 60 cycle, 2300 volt,
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 General Electric, 3 phase, 60 cycle, 2300
 volt motors.

- General Electic, 3 phase, 60 cycle, 2300 volt motors.

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 2 2x12x18 Worthington Duplex Underwriters Fire Pumps, 1500 G.P.M., 100 lbs, pressure.
 17 St. 18 Worthington Duplex Underwriters Fire Pumps, 1500 G.P.M., 100 lbs, pressure.
 18 3x2x3, 4%x5x5, 5%x3x3/xx5, 6x4x6, 12x7x10.

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- Williams & White, Dbl. 15" tht. Cap. 1% "x1" Bement dbl. 20" tht., cap. 1½ "x 1" 84" tht. L&A gl. cap., 1½ "x 1½" M.D. (new) Nowlan Combined Funer & Shear, Cap. 1" x %" Rotary Shears, 48" tht. Quickwork, cap. 1" plate. M.D.
- M.D. Botary Shears, 60" tht. Quickwork, cap. %" plate, M.D.
- M.D. Shears, 43" tht. Quickwork, cap. %" plate, M.D. Rolary Shears, 25" tht. Niugara, cap. %" plate, with circle attachment.

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18' Wickes, Cap. %" plate
16' Wickes, "1" plate, M.D.
16' H. & J. "5" plate, belt or motor
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36" Cleveland Rotary Planer, solid base
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Excellent Condition Priced to Sell

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Nearly New

Nearly New

2—2678 ft. Ingersoll Rand latest type compressors direct connected to synchronous motors.

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1—25 HP Fairbanks-Morse Y oil engine.

10' x %" Plate Bending Rolls.

¾" Kling rotary splitting shear.

1" Lennox rotary bevelling shear.

1" Lennox rotary bevelling shear.

48" tht. 1¼" x 1¼" Punch and shear.

48" tht. 1¼" x 1¼" Punch and shear.

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48" tht. 1½" x 1½" Punch and shear.

49" tht. 1" x 1" Wickes Horizontal Punch.

2" Acme all-steel rivet header and upsetter.

50-ton Hanna air riveter. 36" tht.

2000 lb. Chambersburg Steam Hammer.

800 lb. Beaudry Fower Hammer.

5-ton 53' span A.C. traveling crane.

2—15-ton 100' boom portal pier loco. cranes.

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NEW and USED

STEAM

Boilers, Pumps, Engines, Heaters and Air Compressors.

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Dynamos, Motors and Engine Generator Sets.

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Lathes, Planers, Shapers, Milling Machines, Drill Presses, Boring Mills, Radial Drills, etc.

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6500 STORAGE BATTERIES

3 AND 4 CELLS PER BATTERY

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58 G. E. 5 H. P., A. C. MOTORS

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First Class Condition

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 - 29425—10 Clase "M" Vortex Type. 5" suction, 4" vertical discharge, 450 G.P.M., 18' head, 600 R.P.M., belt driven, pulley 10" dia. x 8". Lawrence Pump & Engine Company.
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- " 29437—12 Single Stage Type "EE" Iron Impeller, 8" suction, 6" vertical discharge, 950 G.P.M., 85' head, 1100 R.P.M. Belt driven, 10" x 10" pulley. American Well Works.
- " 29445—40 Class "M" Vortex Type, 8" suction, 6" vertical discharge, 1000 G.P.M. against 25' head, 550 R.P.M. Belt driven 14" dla, x 10" pulley. Lawrence Pump & Engine Company.
- " 39337—4 Single Stage Volute Style, Type "BS", 10" suction, 8" horizontal discharge, 1000 G.P.M. against 170' head at 2150 R.P.M. Manufacturer, Worthington Pump & Machinery Company. Mounted on common base plate and direct connected to Curtis Single Stage Non-condensing Steam Turbine. Form "A" Type L-25, developing 165 H.P. at 2150 R.P.M. with steam at 140 lbs. pressure.
- " 54001—3 Horizontal Single Stage Motor Driven Unit Pump Type "S" Allis-Chalmers 18" suction, 14" discharge, rated at 10,000 G.P.M. ngainst 88' head at 70 R.P.M. Mounted on common base plate and direct connected to an Allis-Chalmers Company 300 H.P. motor, 3 phase, 60 cycle, 440 volt at 870 R.P.M. Motor provided with both hand and automatic control panels.

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Sales Department

CHARLESTON INDUSTRIAL CORPORATION

NITRO, WEST VIRGINIA



AUCTION SALES of CONTRACTORS' SUPPLIES

including materials and items for use in plants, construction work, etc. to be held this month and next.

ATLANTA, GA., November 15, 1921.

Shelter halves,	45,000	Tents,	200
Horse covers,	100	Wash basins,	1,100

NEW ORLEANS, LA., November 29, 1921.

Field ranges,	398	Horse brushes,	6,000
Halter chains,	12,000	Collar pads,	800
Picket pins,	5,000	Blankets,	25,000
	Shelter hal	ves, 11,000	

For complete catalogues of all materials to be sold at Atlanta and New Orleans, write to Surplus Property Officer, General Intermediate Depot, Atlanta, Ga.

JEFFERSONVILLE, IND., November 22, 1921.

	, , , , , , , , , , , , , , , , , , , ,	
Field Ranges,	2,000 Shovels,	7,000
	Escort Wagons, 156	

COLUMBUS, O., December 5, 1921.

Watering buckets,	28,000	Miners pit lamps,	11,000
Escort wagons,	12	Harness,	1,000
Saddles,	700	Steel angles,	1,000
Arrestors, type WB.	200	Hand piston pumps,	467
Anti-freeze liquid,	gal. 20,000	Barrack bags,	12,000
Blankets,	12,000	Field range coffee boilers,	19
Fire buckets,	1,800	Lumber buggies,	89
Ash cans,	3,000	Axle grease,	lbs. 1,300,000
Halters,	38,000	Dietz lanterns,	1,500
Felt mattresses,	2,700	Gun oil,	21,000
Car oil,	gal, 19,000	Neatsfoot oil,	6,000
Spica oil	pts. 93,000	Shelter halves,	30,000
Shovels,	1,500	Tent stoves.	1,700

For complete catalogues of all materials to be sold at Jeffersonville and Columbus, write to Surplus Property Officer, General Intermediate Depot, 1819 West 39th St., Chicago, Ill.

FORT MASON, CAL., December 5, 1921.

			-, ,	
Heating stoves,		125	Hotel Jewel ranges,	3
Lanterns, candle,		500	Lanterns, Railroad,	600
Neatsfoot oil.	nts. 8	.000	Sperm oil.	gals. 2.700

For complete catalogues of all materials to be sold at Fort Mason, write to Surplus Property Officer, General Intermediate Depot, Ft. Mason, Cal.

921

bro

SPECIALLY PRICED

2—50 H. P. Fairbanks Morse A. C. Squirrel Cage Induction Motors, 2 phase, 60 cycle, 220 volts, 900 B. P. M.

1—35 H. P. Fairbanks Morse A. C. Squirrel Cage Induction Motor, 2 phase, 60 cycle, 220 volts, 900 R. P. M.

2-50 H. P. General Electric D. C. Type D. L. C. Motors 220 volts, 650 R. P. M. Machine Tools

Boilers, Engines Air Compressors, Pumps.

DELTA EOUIPMENT CO.

148 N. Third St. Philadelphia, Pa.

FOR SALE

1-400 H. P. Rust Water-tube Boiler, complete, with stokers. 2-350 H. P. Vogt Water-tube Boilers, complete, with

CHAS. T. LEHMAN - Birmingham. Ala.

STERLING BOILERS
44-823 H. P. Sterling Boilers, Type M-30,
290 pound pressure. Equipped with
Westinghouse 8 retort stokers, Vulcan
soot cleaners, flow meters, 100,000 cu.
ft. capacity forced draft fan direct
connected to turbine.
Practically new at a bargain.
IME NASHVILLE INDUSTRIAL CO PORATION
OUR Bicknown Terressers.

Old Hickory, Tennessee.

4-225 HORSE POWER HORIZONTAL TUBULAR BOILERS

78" dia. 22' 0" long, complete with fronts, and fittings.

McDERMOTT BROS. CO. ALLENTOWN, PENNA.

New Corliss Engines.

27-1836 Heavy Duty, Allis-Chalmers Corliss Engines, both right hand and left hand, 850 H. P. at 125 r. p. m. 11 ft. by 32 inches. Band wheel. Operated on 140-lb. steam pressure, 1½ inch gauge back pressure, double eccentric.

THE NASHVILLE INDUSTRIAL CORP. Old Hickory, Tennessee

WATER TUBE BOILERS

-382 H.P. Stirling, 4-318 H.P. B. & W. 2-400 H.P. B. & W. 150 lb 150 lb 1-850 H.P. B. & W. 150 lb 2-400 H.P. Erie City 150 lb

H. B. T. Marine and firebox Boilers of all sizes

The Markman Engineering Company 111 West Monroe Street Chicago, Ill.

ENGINE AND GENERATOR FOR SALE

1-E. P. Allis Engine and Westinghouse Generator, 75 K. W.

Approximately 100 H.P. 220 volt, belt driven with Locke Automatic Engine Stop, dimensions 25 x 10' over all.

The W. R. MONTAGUE COMPANY.

LaCrosse Wisconsin

DIRECT CONNECTED 60 Cycle Units

KW	Generator	Engine
40	Westinghouse	Ames
70	Westinghouse	Ideal
70	Westinghouse	Ball
70	General Electric	Ball
80	Westinghouse	Hamilton four valve
120	Westinghouse	Rice Sargent Corliss
120	General Electric	Hamilton Corlina
125	General Electric	C.&G. Cooper Corlins
125	General Electric	Harrisburg
125	General Electric	Erie City 4 valve
150	Bullock	Ames
175	General Electric	Skinner Unaflow
200	Westinghouse	Lents poppet valve new
240	General Electric	Ames Tandem Comp.
250	Allis-Chalmers	Buckeye
250	General Electric	McIntosh Seymour
300	General Electric	Green Wheelock
300	General Electric	McEwen Tandem Comp.
325	Allis-Chalmers	Buckeye Tandem Comp.
500	Westinghouse	C.&G. Cooper Cross Com- pound

DIRECT CONNECTED UNITS 110 / 125 Volts D. C.

KW	Generator	Engine	225	C&C	Hamilton 4 valve
ALVV	Concrator	million	300	Westinghouse	Murray Corliss
20 25	Western Electric	Ball-Wood Ball-Wood		3 wire	,
50	Western Electric	Ball-Wood	300	Westinghouse	Buckeye Cross Compound
60	Western Electric	Ball-Wood			
75 100	Thompson Ryan General Electric	Ridgway four valve Harrisburg	300	General Electric 3 wire	Ball-Wood Tandem
25 50 60 75 100 110 200	Westinghouse Allis-Chalmers	Straight line Eric City four valve	350	General Electric	Buckeye Cross Comp. Vertical
	Bullock	Allis-Chalmers			
250	Crocker-Wheeler	Harrisburg Tandem	500	Burke	Erie Ball

KW

39

75

100

100

100

100

100

150

150

160

200

200

We also have a large line of Motors and Generators both A. C. and D. C., and Engines for belted service

STEPHEN HALL & CO., INC.

90 West Street, New York, N. Y.

BOILER PLANT

We offer for sale all or part of a holler plant consisting of twelve 1,000 H. P. polge Moor Boilers built A. S. M. E. code for 200 lbs.—Foster Superheaters—Taylor Stokers—Diamond Soot Blowers—extra heavy piping—three 250 x 16 *self supporting steel stacks—two 20,000 H. P. Cochrane Feed Water Heaters—complete with coal and ash handling machinery—used three to six months—subject to your inspection—a bargain.

ROY BRENHOLTS, Trustee,

1015 Outlook Building, Columbus, Ohio.

OIL ENGINE

200 H. P. Fairbanks-Morse, operates on Kerosene Naptha or Distillate.

280 ft. Ingersoll steam driven air compressor

MID-CONTINENT EQUIPMENT&MACHINERY CO. St. Louis, Mo. Security Bldg.

GENERATORS FOR SALE

IMMEDIATE DELIVERY

-1000 k.w. General Electric Turbo Generators; Curtis Turbine, single stage, non-condensing, 175 lb. steam pressure, 6600 volts, 3 phase, 60 cycle, 3600 R.P.M. 80% power factor.

THESE GENERATORS ARE IN PERFECT CONDITION

Telephone Wire Sales Department

CHARLESTON INDUSTRIAL CORPORATION NITRO, WEST VIRGINIA

MOTORS and DYNAMOS

DIRECT CONNECTED UNITS

220 / 250 Volts D. C.

Generator

General Electric

Westinghouse

Thompson Ryan

General Electric

Westinghouse

General Electric

Crocker-Wheeler

General Electric

Western Electric

General Electric

Westinghouse

Milwankea

3 wire

3 wire

3 wire

Sprague

Engine

Harrisburg

Harrisburg

McEwen

Ames

Ames

Harrisburg

Compound

Harrishurg

Harrishurg

Harrisburg

Arnon

American Ball Angle

Erie Ball four valve

American Ball Angle Compound

CHEAP-For Sale or Rent-CHEAP NEW - A. C. OR D. C. ANY SIZE - USED

REGORY Enormous Stock
ELECTRICO,
CHOCALLEGIS

Out of Control Stock

16th and Lincoln Streets Chicago. Illinois

MACHINERY FOR SALE

- 1-Maloney 10 KVA, one Phase, 60 cycle, Pri-mary volts 13200-12600, Secondary volts 2200 per cent taps 12,000-11,400.
- 2—General Electric Transformers Type H, Form K, 60 cycle, 7½ KVA, 2400 Primary volts, 240-480 accondary volts. Serial No. 1835134. Serial No. 1835132. Oll 8 gallons, instruc-tion Book No. 85100.
- 1—Witte 10 HP Gas engine, 330 RPM, shop No. 7038
- 1—Fairbanks-Morse, 20 KVA, 3 phase, 60 cycle, 2300 volt, 1800 RPM, Type A B Alternator No, 67433 with rheostat and 1.3 KW exciter, 115 volt, 13 amp, type T. B., 1800 RPM No, 15920x
- 1—Wood 30 KW @ 100 per cent P.F.. 3 phase, 60 cycle, 2309 volt, 1200 RPM, 7.5 amp. per phase with 125 volt, 12 amp. 1-½ KW exciter 2200 RPM.
- 1—Platt 9" x 12" Double Acting Vertical Triplex Pump, Shop No. 59838, 19" Suction, 9" Dis-charge, 19.7 gal, per rev. 6-1 gear ratio 159 lbs. maximum water pressure, steel rods, brass lined water cylinders. Arranged for direct connection by friction clutch coupling to 50 HP 011 Engine.
- Platt 4" Double Suction Split Case Horizontal Centrifugal Pump No. 81630. Capacity 606 GPM, 180 ft. head, 1750 RPM, suitable for diect connection to motor.
- 1—Platt 4" 3-Stage Horizontal Centrifugal Pump. Capacity 210 GPM 220 ft. head. Capacity 250 GPM, 200 ft. head, 1750 RPM, arranged for direct connection to motor.

MERKLE MCHY CO.

1733 WALNUT ST. KANSAS CITY, MO.

Compare These Motor Prices

These are only a few of the bargains we offer, picked at random from our large stock.

NEW MOTORS

				-				
HP.	Make	Phase	Type	RPM.	Cycle	Volts	Price	
550	Crock-Whlr.	3	Sl. ring	1170	60	2200	\$1875.00	
60	Gener. Elec.	3	KT	1160	60	220	555.00	
4-50	Gener. Elec.	3	sl. ring	690	60	440	775.00	
8-50	Gener. Elec.	3	sl. ring	1200	60	220	600.00	
12 - 25	Gener. Elec.	3	KT	1200	60	220	302.00	
5-20	Gener. Elec.	3	KT	1200	60	220	267.00	
4-15	Gener. Elec.	3	KT	1800	60	220	216.00	
5-10	Bell	3	compoun.	1800	60	220	216.00	
6-71/	Bell Bell	3.	compoun.	1800	60	220	190.00	
13_ 5	R & M.	3		1700	60	220	94.00	
15-3	Gener. Elec.	3	KT	1800	60	550	75.00	
6-10	Gener. Elec.	2	KQ	1200	60	220	216.00	
200-1/	Western El	. 1	SA	1725	60	110	17.75	
55-1/	Western El		SD	1725	60	110	18.75	

LICED MOTORS

	USI	ED MIOI	UK	3	
HP.	Make Pl	назе Туре	RPM.	Cycle Vo	lts Price
400	Whse.	3 synchro.	450	60 2200	\$1000.00
200	Gener. Elec.	3 sl. ring	600	60 220	0 1400.00
200	Gener. Elec.	3 wound ro.	580	60 220	975.00
2-100	Gener. Elec.	3 sl. ring	514	60 44	0 1100.00
75	Gener. Elec.	3 sl, ring	900	60 220	825.00
2- 50	Fks. Mse.	3 sq. ca.	900	60 220	325.00
2 50	Burke	3 sl. ring	1200	60 22	0 475.00
2- 37	Gener. Elec.	3 sl. ring	750	60 220	450.00
2 - 25	Wagner	3 sl. ring	1150	60 440	375.00
2- 30	Ideal	3 sq. ca.	1150	60 440	0 300.00
200	Whse	2 sl. ring	580	60 220	1275.00
133	Gener, Elec.	2 synchro.	900	60 2200	00.00
150KV	A Stanley	2 alterna.	900	60 2400	550.00
75	Burke	2 sq. ca.	360	60 220	750.00
90	Diehl	shunt	460	240	575.00
90	Gener, Elec.	compoun.	625	220	775.00
90	Whse.	compoun.	675	220	625.00
75	Diehl	shunt	340	220	575.00
4- 47	Whse.	compoun.	600	550	
9	ome have not	been used	over	60 day	R.

All of the above carry our usual ONE YEAR GUARANTEE.

LARGEST STOCK IN AMERICA.

C. MOTORS

Immediate Delivery. Large Stock, Three Phase and Single Phase, Sizes 1/8 to 50 H. P. Send Us Your Inquiries Before You Buy.

SEEGER MACHINE TOOL COMPANY, Machinery and Supplies 34 S. FORSYTH ST., ATLANTA, GA.

Steam Engine Generator Sets, Dynamos and Motors In Stock. BOUGHT-REBUILT-SOLD.

COLEMAN-SHOEMAKER, Inc.

COMMERCIAL TRUST BUILDING PHILADELPHIA

NEW -MOTORS

Let us figure on your requirements

HARRY W. MOTTER

Electrical Power Equipment

YORK

PENNSYLVANIA

BARGAINS

offer rare bargains in the following equipment:
One 100-ton Wheel Press
One Wheel Boring Mill
One American Air Compressor 10" x 8"
One Flory D.D.D.C. Hoist with boiler
One Street D.D.D.C. Hoist with boiler
One Street D.D.D.C. Hoist with boiler
One 50 H.P. G. E. Motor, 3-phase, 60 cycle, 2:
One 40 H.P. Wagner, 3-phase, 60 cycle, 2:
One 10 H.P. Wagner, 3-phase, 60 cycle, 2:
D a thousand other items of good equipment.

The White Oak Corporation, Knoxville, Tenn.

FOR IMMEDIATE SALE

Gas Engine Generator Sets

200 K. V. A. Crocker-Wheeler Alternating Current Generator 3 phase, 60 cycle, 2200 volts, 200 R. P. M., size 202-5-36, Ser. No. 42.452:

DIRECTED CONNECTED TO

Alberger Twin Tandem Gas Engine, Ser. No. 90, size No. 17, cylinders 18" x 19"

WITH.

Bullock Belt driven exciter, direct current, 125 volt, 96 amp. 800 R. P. M. Ser. No. 4898.

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CHARLESTON INDUSTRIAL CORPORATION

NITRO, WEST VIRGINIA.

921.

cord.

THE RANDLE MACHINERY CO

1734 POWERS STREET.

STEAM ENGINES

- 1-38x60 Hamilton Heavy Duty, right hand, Cor-
- 1—38x60 Hamilton Heavy Duty, right name, colliss Engine.

 -17x34x48 Hamilton Cross Compound heavy duty Corliss Engine, designed for rope drive.

 -24x84 Hamilton Girder Frame Corliss Engine.

 3-18x36 Allis-Chalmers heavy duty Corliss.

 -1-8x18 Eric City from Works Automatic.

 -13x18 Eri

2-1000 kw. Westinghouse, 600 volt D. C., 6 phase, 60 cycle, 906 R. P. M. Rotary Converters, with Transformers for 66,000 primary voltage. MOTOR GENERATOR SET

1—200 kw. Allis-Chalmers, 275 volt, Synchronous Motor Generator Set, 900 R. P. M., with a 225 kva. Allis-Chalmers, 3 phase, 60 cycle, 2300 volts, 900 R. P. M. Motor, complete.

D. C. GENERATORS. Belted and Direct Connected.

- Beited and Direct Connected.

 1—10 K.W. Wesche, 110 volt, 1000 R.P.M., compound wound, belted type Generator.

 1—17½ K.W. Triumph, 125 volt, 140 amp., 1250 R.P.M., compound wound, belted Generator.

 1—20 K.W. Western Electric, 120 volt, 1230 R.P.M., compound wound, belted Generator.

 1—25 K.W. Allis-Chalmers, 120 volt, 187.5 amp. 225 R.P.M., compound wound, belted Generator.

 1—35 K.W. Triumph, 125 volt, compound wound, Generator, direct connected to a 9x12 Skinner Automatic Engine.

 1—50 K.W. Allis-Chalmers, 250 volt Generator, direct connected to a 12x12 Ball Automatic Engine on sub-base.
- direct connected to a 12x12 Ball Automatic Engine on sub-base.

 1—75 K.W. Jantz & Leist, 250 volt, direct current, compound wound, Generator, direct connected to a 15x13 Ideal Automatic Engine on sub-base.

 1—100 K.W. Triumph, 125 volt, 675 R.P.M., compound wound, belted type Generator.

 1—100 K.W. Bullock, 120 volt, compound wound, Generator, direct connected to a 16x15 Skinner (Can be reconst) for 250 volts.

 1—125 K.W. Westinghouse Interpole, 259 volt, compound wound Generator, direct connected to a 16x16 Skinner Automatic Engine on sub-base.

-156 K.W., each, Westinghouse, 275 volt, 200 RPM Generators, each direct connected to an 18x 19 Fleming-Harrisburg Automatic Engine, all on

sub-base. 250 kw. Crocker-Wheeler, 250 voits, 200 B. P. M. Generator, direct connected to a 22x22 Harris-burg Automatic Engine.

A. C. GENERATORS.

- Belted and Direct Connected. 1-5000 kw. General Electric Vertical, 3 phase, 60 cycle, 4500 rolts, Turbo Generator Set, with Condenser and accessories.

 1-3000 kw Westinghouse, 3 phase, 60 cycle, 4400 volts Turbo Generator Set. Condensing.

 1-625 kwa. Westinghouse-Parsons, 3 phase, 60 cycle, 230 volt Turbo Generator Set, non-concycle, 520 volt Turbo Generator Set, non-con-
- densing.

 1—500 K.W. Westinghouse, 3 phase, 60 cycle, 2300 volt Generator, direct connected to a 26x42 Hamilton Heavy Duty Corliss Engine 125 R.P.M.,

		D.	C. MOTORS		
No.	H. P.		Make.	Volts.	B.P.M
	50	Used	Allis-Chalmers	250	86
3	30	Used	Jantz & Leist	250	66
l .	20	Used	Triumph	220	96
l	15	Used	Minnpls.	110	35
l	1214	Used	Minnpls.	220	93

- - Also many other sizes and types.

BOILERS

- ## BOILERS

 6-1040 H. P. Edgemore, ASME Code, 200 lb. pressure

 4-828 H. P. Sterling, ASME Code, 200 lb. pressure

 4-350 H. P. Sterling, 100 lb. pressure.

 5-20 H. F. Franklin Heine Uppe, 100-lb. pressure.

 2-21 H. F. Franklin Heine Uppe, 100-lb. pressure.

 2-21 H. P. Atlas, 150-lb. pressure.

 1-200 H. P. 34x18 high pressure H. B. T.

 4-150 H. P. 72x18 high pressure H. B. T.

 2-100 H. P. 60x16 high pressure H. B. T.

 1-80 H. P. 60x16 high pressure H. B. T.

 1-60 H. F. 54x14 high pressure H. B. T.

 1-50 H. P. Standard Fire Box on skids.

 1-25 H. P. 42x95 new Vertical, 125-lb. pressure.

 1-15 H. P. 36x83 new Vertical, 100-lb. pressure.

 4. C. MOTORS.

 4. C. MOTORS.

3 P	hase, 60	Cycle	Squirrel	Cage	and	Slip	Ring.
No.	H. P.		Make		V	olts. I	R.P.M.
12	736	New	General	Electr	le	220	1800
B	10	New	General	Electr	le	220	1200
8 2	15	New	Fairban	ks-Mor	30	440	1750
10	15	New	General	Electr	le	220	1200
1	20	Used	Fairban	ks-Mor	50	220	1200
8	20	New	General	Electri	ic	220	1200
8	25	New	General	Electr	le	220	1200
1	25	New	G. E. (8	lin Ri	ng)	220	1200
5	30	New	General			220	1200
1	30	Used		ghouse		220	1200
1	3.5		G. E. (S			220	1300
4	40		General			220	1200
4	50	New				220	900
1	50		Western			440	900
3	50		G. E. (8		ng)	440	900
4	7.5				ng)	229	900
2	100			lip Ri		220	900
1	100	Used		ghouse		220	1200
2	150	New (G. E. (8			440	720
1	200			lip Ri	ng)	440	600
3	250				ng)	440	600
1	300			lip Ri	ng)	440	600

Also many other sizes and types.

Any of the above 220 volts motors can be furnished for 440 volts and vice versa.

OUR SHOPS AND EXPERIENCE ARE AT YOUR SERVICE

MACHINERY

FROM U.S. A.T. MEADE

Blowers, suitable for mine or other large operations-

D. C. Motors—Generator Sets— 10-ton Ice Machine-Worthington Pumps-

Water heaters-Black and Galvanized Pipe-

Anchors—Chain—Anchor Windlass-

Steering Engine-

All in perfect condition. Can be inspected any time from 8 A.M. to 5 P.M. aboard S.S. Meade now being dismantled at Pier 98, foot of Oregon Ave., Philadelphia, Pa.

Pottstown Steel Company

Douglassville, Pa.

ESTABLISHED 1838

INCORPORATED 1907

GEO. F. MOTTER'S SONS

Steam and Electrical - Engineers

YORK, PA.

Boilers, Engines, Tanks, Stacks, Heating Contractors, Machinery Supplies, Steam Power Plant Equipment, Machine Repairs

Motors, Generators, Power Equipment, Factory Supplies, Re-winding, Construction and Repairing

SPECIAL

- 1-300 H.P. Westinghouse, CX, 3 Phase, 60 cycle, 220/440 V. 600 R.P.M. motor.

 1-250 H.P. Westinghouse, C, 3 Phase, 60 cycle, 220/440 V. 600 R.P.M. motor, 220/440 V. 600 motor, 220/440 V.
- moter, 220/440 V. H.P. Westinghouse, C, 2 Phase, 60 cycle, 220/440 V. 580 1-250 H.P.
- 1-200 H.P. Westinghouse, C, 2 Phase, 60 cycle, 220/440 V. 580 R.P.M.
- 1-100 H.P. Crocker Wheeler, 3 Phase, 60 cycle, 2200 V. 720 R.P.M.

Motors, Generators, Engines, Air Compressors, Tanks, Boilers, Hoists, etc.

W. A. CARRELL & COMPANY

11 Second Ave.

Pittsburgh, Pa.

Guaranteed MACHINERY AND EQUIPMENT available now!!

From our permanent southern sales headquarters Slidell, La.

ROILERS

1-284 H.P. B&W Water Tube 150 lbs. pressure.
1-250 H.P. Eric City Water Tube 150 lbs. pressure.
1-100 H.P. Locomotive Fire Box 90 lbs. pressure.
1-40 H.P. Internal Fired 90 lbs. pressure.
2-72*x18* Horizontal Tubular 115 lbs. pressure.
1-66*x18* Horizontal Tubular 115 lbs. pressure.

CONDENSERS and HEATERS

2—2000 Ft. Wheeler Surface Condensers
1—1400 Ft. Worthington Surface Condenser
2—12" Morris Centrifugal Circulating Pumps. Direct
connected to Steam Engines.
1—12" x 14" x 14" x 12" Worthington Vacuum
Air and circulating Steam Pumps.
2—Row Davis Evaporators, Steel shell, 28" diam.,
2—Row Davis, High Pressure Heaters with copper
coils.

PUMPS

1—750 Gal. C. H. Wheeler Underwriters Steam Firs Pump Size 16" x 9" x 12"
1-500 Gal. Blake Underwriters Steam Firs Pump, aize 14" x 7½" x 12"
4-10" x 6" x 12" Simplex Boiler Feed Steam Pumps (new)
3-10" x 6" x 12" Duplex Steam Pumps (new)
1-0" x 5%" x 6" Duplex Steam Pumps (new)
1-1" x 5" x 2" x 4" Duplex Steam Pumps (new)
1-1" x 6" Worthington Triplex Hydraulic Fump.
Beit Drivern (new)

SMOKE STACKS

1—110 Ft. 70" Diam., Nos. 7 & 9 Gauge Guyed 1—80 Ft. 72" Diam No. 9 Gauge Guyed 1—120 Ft. 66" Diam., Nos. 7 & 9 Gauge Guyed 2—80 Ft. 66" Diam., Nos. 7 & 9 Gauge Guyed 4—6 Ft. 66" Diam., Nos. 7 & 9 Gauge Guyed 1—70 Ft. 36" Diam., No. 10 Gauge Guyed 2—80 Ft. 30" Diam., No. 7 Gauge Guyed

GENERATORS and MOTORS

1-250 K.W. Gen. Elec. 2300-440 volt, 3 phase, 60 cycle, d.rocs connected to McEwan Compound

Engine.

-210 K.W. Gen. Elec. 2300-440 volt, 3 phase, 60 -210 n.w. Gen. Elec. 2300-434 volt., 3 phase. 90 cycle, direct connected to cross compound engine. -50 K.W. Fr. Wayne 115-125 volt, direct current. Direct connected to Ball auto engine. -35 K.W. Burke Elec. 125 volt, direct current. Direct connected to Ames Auto Engine.

MOTORS

440 volt, 3 phase, 60 cycle

-50 H. P. Allis Chalmers Variable Speed -50 H. P. " Speed 1160 -40 H. P. " Speed 1160 -40 H. P. " Speed 1160 -40 H. P. " Speed 1865 -30 H. P. " Speed 159 -7 H. P. Western Variable speed (new) -7½ H. P. Crocker Wheller 125 volt, D. C.

SHEET PACKING

7-Rolls 1/4" Red Superheat High Pressure 48" wide 2—Rolls 1/16" Red Superheat High Pressure 48" 2—Rolls 1/16" Graphite Sheet Packing 48" wide 3—Rolls ¼" Red Rubber Packing 36" wide

HOISTS, DERRICKS, AND CRANES

4-7½" x 10" Dake Dbl. Cyl. Sgl. Drum Geared Steam Hoists. 1-6½" x 8" Clyde Dbl. Cyl. Dbl. Drum Steam Hoist. -6½, x 8" Clyde Dbl. Cyl. Dbl. Drum Steam Hoist. -5½, x 8" American Dbl. Cyl. Dbl. Drum Steam Hoist. -7" x 10" American Dbl. Cyl. Dbl. Drum Steam Hoist with swinger and boiler. -8-5 III American Dbl. Cyl. Three Drum -8-6 Derrick 58' Mast 53' Boom with Bull Wheel. -10 Ton Stiff Leg Derrick 70' Boom. 40' 1-Wheel.
1-10 Ton Stiff Leg Derrick 70' Boom, 40'
Mast with Bull Wheel.
1-3 Ton American 4 Wheel Locomotive Crane.
Standard Gauge.
1-2 Ton Byers Auto Crane Standard Gauge.

AIR COMPRESSORS

1—1900 Ft. Ingersoll, Straight Line Steam Driven.
 1—1200 Ft. Ingersoll, Straight Line Steam Driven.
 1—309 Ft. Chicago Pneumatic Tool Co., Oil Engine Driven.

Write for list of Ship Building Material No. SL 2 Address all inquiries on this ad to

HARRIS BROTHERS CO. SLIDELL, LA.

RESALE DEPARTMENT

If You Have Any of The Following Machinery to Offer Let Us Hear from You:

1-8' Band Saw Mill.

1-Carriage with steam feed and steam set works. 1-60"

1-5 Saw Trimmer.

1-Mitts & Merrill Hog No. 6.

1-7' Band resaw, vertical-Mershon preferred. 1-6' Band resaw, vertical-Mershon preferred.

1-5' Band resaw, vertical-Mershon preferred. 1-Self Feed Band rip saw.

-6 x 15" round cylinder six knife Planers. Filing room equipment.

Dorchester Lumber Company BADHAM, S. C.

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Will give you results in actual business. Exhibits on ground floor Write for information

Chemical Plant Equipment

Autoclaves, Centrifugals, Dryers, Evaporators, Filter Presses, Kettles, Pulverizers, Reducers, Tanks, Refrigerating Equipment, Boilers. Let Us Have Your Inquiries

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Cox 8" & Stoever 3" Pipe Machines. Niagara No. 136 Power Sq. Shear. Robinson 8' All Iron Brake. Chicago 8" x 8" B. D. Air Compressor. Niles 36", 60", 90", & 10' Boring Mills. Baush 9' & Fosdick 3' Radial Drills, Pond 6', 61/2', 7' & 8' Radial Drills. Williams-White No. 4 Bulldozer, Niles 15" Slotter. Sellers 48" x 48" x 12' Planer, M. D.

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PITTSBURGH, PA.

MILES' BARGAINS

1500 gal. Fire Pump \$1000 500 ft. Air Compressor \$650 25 HP F. M. "Y" Oil Engine \$600

MILES MACHINERY CO. Saginaw, Mich.

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From 1" to 20" New and second-hand at less than one-half price. All makes Rotary Drilling rigs in stock.

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Beaumont,

IRON AND STEEL PIPE

Large quantity Pipe, with threads and couplings, used in Government plant a short

Rods-100 tons 7/8" Round Rods, 14' to 22' lengths.

Central Pipe & Supply Co.

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TANK OFFERING

Priced Low For Ouick Moving

In order to make room for new incoming industries, we must remove all tanks from our buildings not later than December 31st, 1921.

Item 39113-4 vertical Tanks, 15' dia. x 7', capacity 9500 gallons: first grade all heart yellow pine. Staves and bottom 3" thick. Iron reinforcing hoops,

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" 39107-350 vertical tanks, 9' x 10', capacity 5000 gals.; first grade all heart yellow pine. Staves and bottom 3" thick. Iron reinforcing hoops 34"

39115-50 vertical tanks, 15' x 16', capacity 21,000 gals.; first grade all heart yellow pine. Staves and bottoms 3" thick, %" iron hoops. Tanks equipped with paddle agitators complete with bevel gears and driving pulleys.

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THE ABOVE ITEMS AT SACRIFICE PRICES.

For complete specifications, prints, etc.,

WRITE WIRE PHONE

Sales Department

Charleston Industrial Corporation

NITRO, WEST VIRGINIA

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NE

WROUGHT STEEL Class C 25,000 Ft. 15,000 " 3,000 " 3,000 " 34" New National Galvanized Spellerized 20,000 Ft. ... 50.000 3,000 2½" to 8" Black Steel 16", 12" & 16" O. D. Blk. Reading 3.000 12" 14" 500 FITTINGS - CAST & MALLEABLE FITTINGS - B. & S. 1000 tons — all sizes Screwed & Flanged Std. & Ex. Hvy. — all sizes Valves — Std. Ex. Hvy. Hydraulic Valves Hydrants - Corey & Matthews

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ALL SIZES

SECOND-HAND

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Fittings, Valves, etc.

We have modern equipment and are prepared to make prompt shipments.

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All sizes, %" to 12". Clean, newly threaded, with new couplings, random lengths, 17' to 20'. CAST IRON B. & S. 4-6-8-10-12", A, B and C grade, standard lengths.

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Pipe, all sizes, bought and sold. What sizes are you in the market for? What sizes have you for sale?

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1½ TON KISSEL TRUCK
ALL KINDS OF

Machinery, I Beams, Pipe, Channel Iron, Etc. We specandize in dismantling Plants, Fires & Wrecks-

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PIPE SECOND-HAND All Sizes 3/1 to 241

Furnished with new threads and couplings, suitable for every practical purpose.

Also large assortment of Contractors' Equipment, Hoisting Engines, Bollers, Concrete Misers, etc.; all thoroughly overhauled.

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STEAM SHOVELS

2-MODEL 20-1%-YARD DIPPER STANDARD GAUGE LOCOMOTIVES

8-18 TON SADDLE TANK 36-INCH GAUGE

GUARANTEED GOOD CONDITION - BEST OFFER TAKES THEM

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2-150 H. P. R. T. Boilers, 100 lbs. pressure.

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1-40" or 42" Gauge Locomotive (Baldwin), 10 ton.

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1—16 H. P. "Pen Argyle" D. D. D. C. Hoisting Engine, no boiler.

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COAL-HOPPER-FLAT BOTTOM GONDOLA CARS
30-40-50-TON CAPACITY
FLAT AND BOX CARS
LOCOMOTIVES
CONTRACTORS' EQUIPMENT
LOCOMOTIVE CRANES
STEAM SHOVELS

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120 LIBERTY ST.

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THE MIAMI CONSERVANCY DISTRICT

IS FINISHING UP IT'S WORK, A GREATER PART OF IT'S \$2,000,000 CONSTRUCTION PLANT IS NOW FOR SALE. THE WORK IS SO NEAR COMPLETION THAT WE CAN RELEASE MOST ANY KIND OF EQUIPMENT YOU MAY

Take advantage of this opportunity to secure first class construction machinery at a marked reduction. Look over equipment while some of it is still in operation. Send for complete list.



DRAGLINE EXCAVATORS LOCOMOTIVES (Steam & Gasoline)

ELECTRIC MOTORS TRANSFORMERS

CONCRETE MIXERS BOILERS-PUMPS ROCK DRILLS

AIR COMPRESSORS DERRICKS

CONCRETE BUCKETS

FOR SALE-FOR IMMEDIATE SHIPMENT

The following equipment is all in first class condition:

2—Gem City 15 H.P. Horizontal Boilers, 100 lb, pressure.
1—Gem City 25 H.P. Horizontal Boiler, 100 lb, pressure.
1—15 H.P. Brownell Scotch Boiler, 15 lb, pressure, horizontal mounted on skids, 44 lin. x 70 ln.

DUMP CARS

12-Western Air Dump Cars, standard gauge, with 50,000 lb. capacity AIR COMPRESSORS

2—Sullivan Air Compressors, 10 x 10, belt driven, capacity 213 cu. ft. free air per minute at 100 lbs.

DRILLS

4—Sullivan Class 2, steam or air Bock Drills, 3¼ cylinder.
2—Ingersoll-Rand E-44 steam or air Rock Drills
2—Ingersoll-Rand Butterfly Jack Hammer Drills
3—Sanderson Cyclone Class B non-traction Well Drill, with 24 ft.
derrick.
2—Sullivan Class D.P. 33, Solid Piston Rotator Type Drills
1—Sullivan Steam Submarine Drill, Class F. V. 14, 5 in. dia.

DRAGLINE EXCAVATORS

DRAGLINE EXCAVATORS

1—Lidgerwood Class M. Electric Dragline Excavator, truck mounted, 100 ft. boom, 3 % to 4 yd. bucket

1—Lidgerwood Class B. Steam Dragline Excavator, truck mounted, 60 ft. boom, 1 % yd. bucket

1—Bucyrus Class 24 Steam Dragline Excavator, skid mounting, 100 ft. boom, 2 % yd. bucket.

2—Bucyrus Class 24 Electric Dragline Excavators, skid mounting, 85 ft. boom, for 4 % yd. bucket or 100 ft. boom for 3 % yd. bucket.

1—Marion Model 36 Revolving Dragline, mounted on crawling traction trucks, with 40 ft. boom and 10 ft. extension.

LOCOMOTIVES

3-3-ton Phymouth Gasoline Locomotives. 3-18-ton 10 x 16 Porter Steam Saddle Tank, 38 inch gauge. 8-40-ton 14 x 22 American Steam Saddle Tank, standard gauge.

STEAM PILE HAMMERS 2—No. 2 Vulcan Steam Pile Hammers, with standard base, weight striking part 300 lbs.

1—No. 3 Vulcan Steam Pile Hammer, with standard base, weight striking part 550 lbs.

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2-6½" x 12" Lambert D.C.D.D. with A.S.M.E. Boller, 2-9" x 10" Lidgerwood D.C.D.D. with Swinging Gear attached and A.S. M.E. Boller, 1-8½" x 10" Lambert D.C.D.D. with 50-H.P. Boller A.S.M.E. mounted

on same. 3—7" x 10" Lambert, National and American.

SKELETON HOISTING ENGINES

1-9½" x 10" Lambert Double Drum with Swinging Gear attached.
1-12" x 12" Lambert single Drum.
1-9½" x 1.0" Lambert single Drum.
1-9½" x 1.0" Lambert single Drum.
1-9½" x 1.0" Lambert Shing Drum.
1-9" x 1.0" Mead & Morrison three Drum.
1-8½" x 12" Contractors Plant three Drum.
1-8½" x 12" Contractors Plant three Drum.
1-8½" x 10" Stional Double Drum.
1-8½" x 10" Stional Double Drum.
1-8" x 10" Lidgerwood Double Drum Reversing.
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1-7" x 10" National Double Drum with Swinging Gear attached.
Almost any make 7" x 10" size and smaller Double and single Drum in Stock.

lock. Joilers, Stationary Engines and Pumps, almost every size and for every sty, in Stock.

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Steam & Electric COMPRESSORS of all sizes.

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Concrete Mixers

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W. P. HEINEKEN

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2 Iroquois, 2½-ton Tandem. 1 Iroquois, 7-ton Tandem. 4 Pioneer, 5-ton Tandem.

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1 Thew No. 0 Traction, 3/8 yd. dipper. HENRY A. HITNER'S SONS CO. 4501 Richmond St., PHILADELPHIA, PA.

Locomotives, Steam Shovels, Locomotive Cranes, Cars,

New and Relaying Rail WE HAVE FOR SALE

40 Standard and 38" Gauge Modern Direct-connected Locomotives, in all types and weights from 8 to 75 tons.

10 Standard and 38" Gauge Gearel Locomotives all weights.

15 Steam Shorels and Locomotive Cranes of different types and sizes.

100 sets 35 and 40-10 Frogs and Switches; good as new.

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Attention! Heavy Haulers FOR SALE AT A BARGAIN A three and half ton Bull Dog

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Been operated less than four thousand miles Looks like new.

HOOPER MOTOR COMPANY,

Selma, Alabama

1921

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2-90 T. Brownings 8 Wh. D. D. 50' Boom 1-15 T. "With Generator & Magnet 1-20 T. "50' Boom 8 Wh. MCB, DD STEAM SHOVELS

1-ERIE Type B-4-OSGOOD "18" 2-THEW " "O" 2-BALDWIN LOCOMOTIVES 36 Gage

30 CHURCH ST. NEW YORK PHILIP T. KING

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One Browning 20-ton 8-wheel 50-foot boom separate rotating engines
Two Browning 4-wheel electrically operated
Two Industrial 15-ton 8-wheel
One Industrial 75-ton 4-wheel

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24 x 36 Jaw Crusher

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Two Chalmers & Williams No. 6 gyratory. Have been used very little. New Jersey delivery.

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3--100 M lbs. cap. 41 ft. steel underframe fiat or gondola cars. 5—8,000 gal. steel tank cars. 200—tons NEW 60 lb. rails. WALTER A. ZELNICKER SUPPLY CO.,

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Four Bay City Walking Dredges

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AT RIGHT PRICE

1-#16 Koehring Paving Mixer Gaso-

1-#16 Koehring Paving Mixer with

Boiler and Engine.

line driven.

1-Koehring Loader.

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Complete Line Rebuilt Steam and Electric Compressors, Mixers, Derricks, Cableways, Beilers, Crane Write for List
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5—Steam Pavers, Chute Discharge, Overhauled and
In First Class Condition.
No. 18 E Foots. \$1000.00
No. 18 E Foots. 1500.00
No. 11 Ecohering. 1500.00
THE T. J. LANE EQUIPMENT CO. Springfield, Ohio

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One 17 ton O & S. Standard Gauge, 14 wheel, 40' boom, bucket operating with bucket. Ready for service. \$3600.00

One 17 ton O & S. Same as above, no bucket and needs a few repairs but could be used at once. \$2500.00

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1—25-ton. 8-wheel, stand, gauge, Industrial Shop No. 3799, built Dec. 1920, A.S.M.E. boller, 50 ft. boom, 20 ft. extension, doul.-e drums, outriggers, stam and airbrakes. Shightly used, in condition like new. Attractive price.

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Caterpillar Steam Shovel

Grey Steel Products Company

1-Marion model 38, full revolving, Caterpillar Traction, Shop No. 3700, new 1917, 1½ yd. dipper, 25 ft. boom, First-Class Condition, Attractive Price.

New York, N. Y.

FOR SALE

One—500-ft. Span Lidgerwood Cableway, D.C., 8-D, with boiler and 1¼-yd, clam shell. One—109-ft. 24-inch Robbins Belt Conveyor. One—Lot of 30-inch Robbins Belt Conveyor Equip-

JOHN M. GREENE, 261 Drexel Bldg., Philadelphia, Pa.

One—Lot of 30-inch Mounts East Charles, S-ten, %-yd.
Two—Traction Locomotive Cranes, 5-ten, %-yd.
Clam shell,
Two—Steam driven Byers Traction Cranes, 40-ft.
boom with clam shell.
Philodelphia, Pa.

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40 ton Vulcan 4-driver Saddle Tank Switching Locomotive, 180th Steam, Excellent condition

MID-CONTINENT EQUIPMENT&MACHINERY CO. St. Louis, Mo.

Security Bldg.

SHOVEL "O" Thew on traction wheels. ilt. Immediate Delivery. Rebuilt. Bargain Price.

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3,000 tons 60 lb., with angles. 2,000 tons 56 lb., with angles.

Free delivery to any part on Illinois Central R. R., south of St. Louis; attractive prices also can be made to any contiguous territory or for export.

600 tons 25 lb., with angles, located at Red Lick, Mins. This rail is well situated for delivery to points in Alabama. Mississippi and Louislana, or for export.

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250 tons first-quality new 25 lb, billet steel rails, and fastenings, located Austin, Taxas. Terms will be made to responsible buyers.

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We have for sale one rebuilt No. 1 Merriman 2000 yard One-Car Steam Melting Asphalt Plant. In fine condition, on which we can make good delivery.

Here's an opportunity to get a real plant quickly and at a right price. Better get in touch with us immediately.

The East Iron & Machine Co.

Lima, Ohio

FOR SALE

Complete Road Building Machinery

1-10 ton 25 H. P. Austin Road Roller 1-No. 3 Austin Platform Sprinkler, lever pump 3-1½ yards Austin Dump Wagons

1—8x15 Case crusher, Rock Bins, Elevator, revolv-ing screens, complete

3-wheel scrapers, 1 Rooter plow 1-Case grading machine, 1 metal drag

1-1/3 yard tilting concrete mixer 1-1-1/4 Ton Ford truck

1-12 Ton I. H. C. roller with interchangeable A large lot of camp equipment, wheel-barrows and tools. Sold as a whole.

All above new or in splendid condition.

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AT REDUCED PRICE

Type P, coal handling, 100' Rad, differential gear drive, steam power, 4 trucks, 3' guage, travelling on track at 18' C. to C., capacity 200 tons per hour.

Write Phone Sales Department Charleston Industrial Corporation

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Manganese the Stuff



You can hammer it 'till the cows come home and it doesn't know you're knocking. That's why we put a manganese insert in this No. 54H Heavy Duty Stiff Frog. Flange worn wheels don't make any more impression on it than a shipworm makes on an armored cruiser.

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1095-ton Consolidations; 21x28"; 200 lbs. pressure; Outside valve gear, Etc.

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24". 36" and Standard Gauge; Rod and Geared; 5 to 100 tons in weight. FOR ALL CLASSES OF SERVICE

LOCOMOTIVE CRANES

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COMPLETELY REBUILT IN OUR SHOPS, PLACED IN FIRST CLASS CONDITION. IMMEDIATE SHIPMENT FROM STOCK.

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New Fregs and Switches at low prices.

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IRON - STEEL SCRAP

The West Va. Rail Co. HUNTINGTON, W. VA.

Manufacurers Light Steel Rails 12, 14, 20, 25, 30, 35, 40, 45 lbs. per yd.

We are also dealers in Relaying Rails. All Sizes

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One 80-Ton Shay Locomotive, Standard Gauge, good working condition.

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I. H. COHN, President
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With Angle bars to match all sections. Wire or write for prices.

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200 tons 20-lb, rail.
200 tons 30-lb, rail.
100 tons 30-lb, rail.
2 miles of 40-lb, rail.
50 tons of 50-lb, rail.
200 tons of 50-lb, rail.
200 tons of 70-lb, rail.

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NEW BOILER TUBES Immediate Stock Shipment

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15,000 tons 30 lb. to 100 lb. Sections with necessary Bars

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250 Tons 60 lb. Rails 225 Tons 70 lb. Rails 200 Tons 80 lb. Rails

All at Attractive Prices

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4-14x22, stand. gauge. American 40-ton, 4-wheel built 1919, A.S.M.E. boilers, 180 lb. pressure.

1-16x24, stand. gauge, American, 50-ton, 4-wheel Shop No. 51.393, 175 lb, boiler pressure, Excel-

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FOR SALE OR RENT

-18 ton 36" ga. American Locomotive.

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-0 AUSTIN TRENCHER—gasoline—ditch 20 to
42" by 18 TAUSTIN TRENCHER—gasoline—ditch 20 to 30" by 8 ft.

-14 dich 26 to 30" by 8 ft.

-15 digerwood 7x10" single drum holsting engine.

Good working order Real Bargains E. C. SHERWOOD, 50 Church Street, NEW YORK

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Georgia Car & Locomotive Company

General Office and Plant, Ridge Ave. and Sou. Rwy.

ATLANTA, GEORGIA

REBUILT LOCOMOTIVES: All types and sizes—a large stock to select from.

FLAT CARS: HAVING ENTIRELY NEW BODIES ON REBUILT TRUCKS

CABOOSE CARS, BOX CARS, GONDOLA CARS, and any kind of special cars built to your specifications.

REBUILT PASSENGER COACHES: Combination Passenger and Baggage Coaches; Full Passenger Coaches, and "Jim-Crow" Coaches. Have a large stock at this time.

STANDARD GAUGE CAR TRUCKS: For logging purposes—large stock at all times.

Write or wire us for full information and prices.

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General Office and Plant, Ridge Ave. and Sou. Rwy.

ATLANTA, GEORGIA

HENRY H. BABER

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Logging Equipment, Track Materials and Supplies LOCOMOTIVES, CARS, STEAM SHOVELS and CRANES

Dickson Building - NORFOLK, VA.

RAILS RAILS We always are in the market to purchase any tonnage

We always are in the market to purchase any tonnage of rails. Prefer 40 lbs. and heavier. What have you to offer?

Write Wire Telephone
KARASIK, FRIEDMAN & CO. INC.
WOOLWORTH BLDG., NEW YORK

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We maintain an engineering department which renders service to our customers and prospective customers in the solution of their track problems.

This service is yours for the asking without any obligation whatever on your part.

"CINCINNATI" Track Equipment is the kind you will eventually use.

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12 lbs. to 60 lbs. per yard Concrete Bars, Rounds, Squares, and Twisted Squares Light Steel Angles

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Mill and General Offices: WILLIAMSPORT, PA.

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Manufacturers of

FROGS, SWITCHES, CROSSINGS, Etc.

THE WEIR FROG CO.

Manufacturers of

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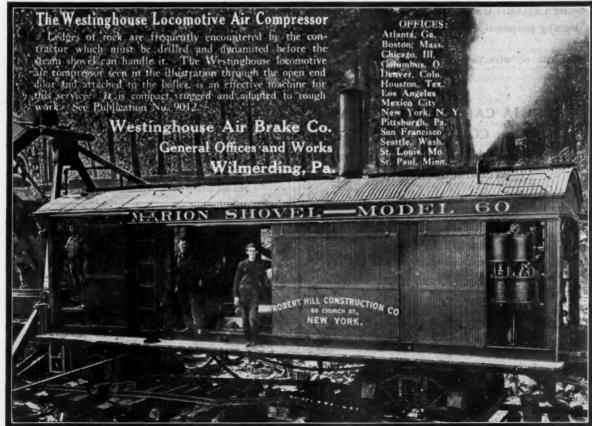
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We are building Locomotives from 12 to 90 Tons for all classes of service Investigate for Switching Industrial Plants—Catalog K.

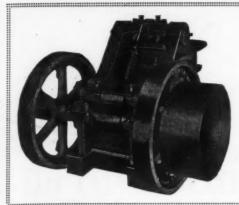


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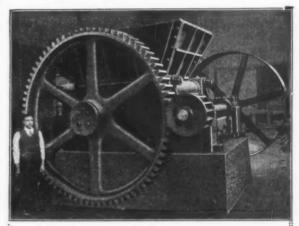
We are ready to help you repair all bad-order locomotives, whether of our own build or of other makes.

Orders for this work may be sent direct to us, or our nearest representative will call and make a complete survey of the repair work required.

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After many years' practical experience building and operating other crushers, we brought out the first Single Roll Crusher, proved it best, simplest and most economical—making least fines—requires but little head room—no apron or hand feeding—takes wet or slimy material.

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The chain was manufactured in fifteen-fathom shots, which is the equivalent of ninety feet, each ninety foot piece weighing 8700 pounds. The inspection lasted two days. From each ninety foot length there was cut a three link break piece which had to sustain a breaking load of 457,184 pounds. These break pieces were then pulled to 460,000 pounds. The fifteen fathom shots were put into the testing trough and subjected to a proof load of 326,592 pounds.

When the test was completed Mr. T. S. Archer of the Argentine Commission exclaimed it was the most satisfactory chain he had ever inspected.

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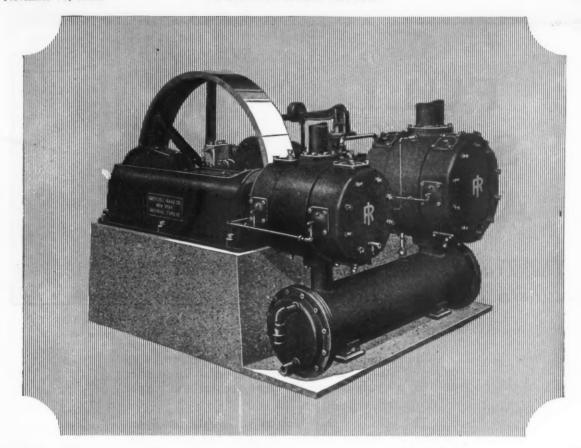
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Let us send you a copy of Bulletin 3042 which describes these units.

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Open wide the business throttle. Put on every ounce of steam. Business has rounded the corner and has a straight road ahead to greater and bigger prosperity.

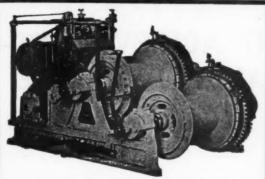
The steady rise in cotton will add over \$750,000,000 to the purchasing power of the South—the first section of the country to show real evidence of business revival.

Industrial activities are expanding, building construction is increasing and public work, especially road building, is being pushed harder than ever.

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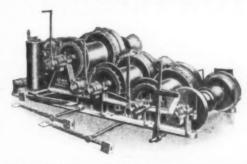
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U PONT Straight Nitroglycerin Dynamite has always been considered the standard of explosives. It is an extremely dependable dynamite, quick acting, sure firing, with great shattering power.

However, there was one characteristic of Straight Dynamites which made their use for certain types of work impractical: they all froze at a temperature of 45 to 50 degrees Fahrenheit, and had to be thawed to obtain maximum explosive power. Because of the sensitiveness of "straight," the thawing operation was dangerous.

Manufacturers of explosives have tried for years to eliminate the thawing hazard-which has detracted from the efficiency of Straight Dynamite—without at the same time losing its fine qualities.

This is just what Du Pont Chemical Engineers have accomplished after years of experiments in the laboratories and in the

Du Pont Straight Dynamite is now practically non-freezing and requires no thawing. Operations in the field have been successfully carried on with this explosive at ten degrees below zero. It is now possible to "shoot" straight dynamite successfully under weather conditions which formerly would have made its use impractical.

This marked advance in the art of explosives manufacture illustrates one feature of Du Pont Explosives Service—constant improvement in the efficiency of the product. Painstaking chemical control in manufacture insuring uniform quality, a remarkable distributing system insuring prompt delivery, a staff of field experts always at your command, combine to form a service which constantly meets and anticipates the needs of Industry.

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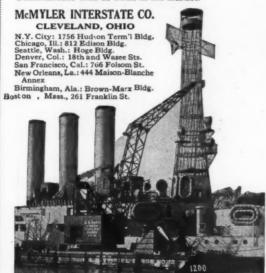
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Ocean Parkway, Brooklyn, shown above, is a wide and important thoroughfare. The three Keystone Excavators take up fifteen inches of macadam, curb to curb, at the rate of 1000 cubic yards per eighthour day. The street is left to the exact grade. There is no roller on the job.

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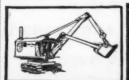
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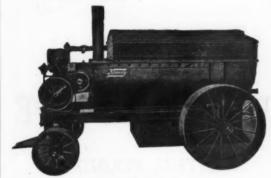


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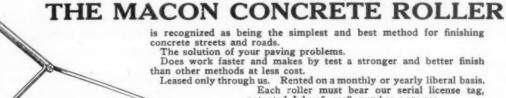
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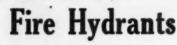
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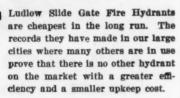
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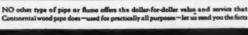


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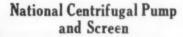
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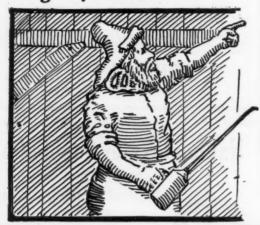


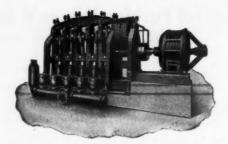
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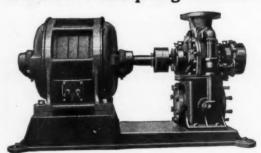
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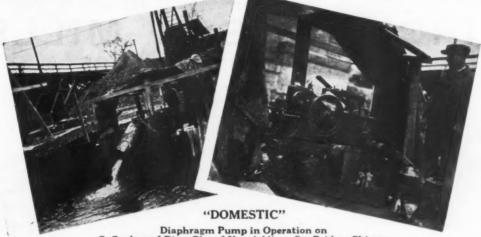
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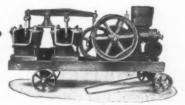
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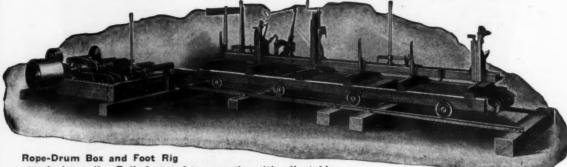
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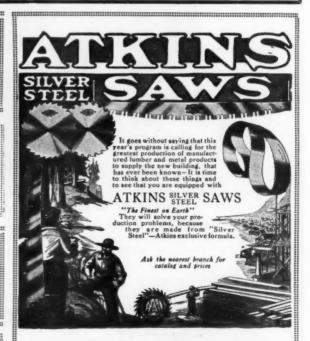
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Huntington & Guerry, Inc., Ureenvise, S. C.

Klauder, Louis T., Phila., Pa.
Lee, William S., Charlotte, N. C.
Lide, Martin J., Birmingham, Ala.
Motter's Sons, Geo F., York, Pa.
Robinson & Co., Inc., Dwight P., N. Y.
Stone & Webster, Inc., Boston, Mass.
Teleco, Inc., Knoxville, Tenn.
Tucker & Laxton, Charlotte, N. C.
White, Gilbert C., Durham, N. C.

Mucsel & Laxton, Charlotte, N. C.

White, Gilbert C., Durham, N. C.

Archer & Co., E. T., Kansas City, Mo.

Billingley, Jas. W., New Orleans, La.

Black & Veatch, Kansas City, Mo.

Byliesby Engineering & Management

Corp., Chicago, Ill.

Camp, E. Y., Atlanta, Ga.

Corp., Chicago, Ill.

Camp, E. Y., Atlanta, Ga.

Day & Zimmermann, Lu., New Fork.

Day & Zimmermann, Luc., Paib., Pa.

Eliest, Hermann, Balto., Md.

Ford, Bacon & Davis, New York, N. Y.

Hawley, Chas. B., Washington, D. C.

Lee, William S., Charlotte, N. C.

Long Co., M. A., The, Baltimore, Md.

Ophula, Hill & McCreery, Inc., N. Y.

Parsons, Klapp, Brinckerhoff & Douglas,

New York, N. Y.

Soofield Engineering Co., Philadelphia,

Pa.

Pa. Mobbets, Ven. Moster.

Pa.
Stone & Webster, Inc., Boston, Mass.
Tucker & Laxton, Charlotte, N. C.
Wehr & Walden, Baltimore, Md.
Weller, Francis B., Washington, D. C.
Whita Engineering Corp., The J.
New York, N. Y.
White, Gilbert C., Durham, N. C.

Gas.
Allison, Walter A., Philadelphia, Pa.
Byllesby Engineering & Manarement
Corp., Chicago, Ill.
Ford, Beacon & Davis, New York,
Wehr & Walden, Baltimore, Md.

Clark & Krebs, Charleston, W. Vs. Froehling & Robertson, Bichmond, Vs. Meade & Co., Richard K., Baltimore, Md. Klauder, Louis T., Philadelphia, Pa

Housing.

Minter Homes Corp., Huntington, W. Va.

Hydraulie.

Black & Veatch, Kansas City, Mo.

Black & Vestich, Kansas City, Mo.

Hydro-Electrie,

Byllesby Engineering & Management
Corp., Chicago, Ill.

Black, McKenney & Stewart, Wash., D. C.
Cooper & Co., Hugh L., New York.
Pordyre, John R., Hot Springs, Art.
Gannett, Seelye & Fleming, Inc., HarHawley, Chas, B., Washington, D. C.
Lee, William S., Charlotte, N. C.
Ludlow Engrs, Winston-Salem, N. C.
Main, Chas, T., Boston, Mass.
Mees & Mees, Charlotte, N. C.
Parsons, Klapp, Brinckerhoff & Douglas,
New York, N. Y.

Beld, J. G., Chicago, Ill.
Bobinson & Co., Inc., Dwight P., New
York, N. Y.
Sanders & Sweeney, Anderson, S. C.
Scondol Engineering Co., Philadelphia,
Sirrine & S. C., J. E., Greenville, S. C.

Scofield Engineering Co., Philadelph Pa., Sirrine & Co., J. E., Greenville, S. C. Tucker & Laxton, Charlotte, N. C. Weller, Francis R., Washington, D. C. White Engineering Corp., The J. (New York, N. Y.

Ice-Making Plants.
Ophuls, Hill & McCreery, Inc., N. Y.

Eisert, Hermann, Bakto. Md. Klauder, Louis T., Phila., Pa. Mallette, John S. Ravenna. Ohio. Meler & Co., Inc., A. J., St. Louis, Ms.

Day & Zimmermann, Inc., Philla., Pa.
Dixie Engr. & Insulating Co., Atlants,
Ga.
Ga.
Ellis, Frank I., Pittsburgh, Pa.
Ferguson Co., J. B., Hagerstown, Md.
Fordyce, John R., Hot Syrings, Ark.
Gardner & Howe, Memphis, Tenn.
Genier & Co., J. E., Baltimore, Md.
Genier & Go., J. E., Baltimore, Md.
Hunt Engineering Co., Kanasa City, Ma.
Huntington & Guerry, Inc., Greenville,
S. C.
Intern'l Conveyor Corp., New York, N. Y.
Lockwood, Greene & Co., Boston, Mass.
Long Co., M. A., The, Baltimore, Md.
McDevitt-Fleming Co., Chattanooga, Yunn.
McDonald, Ch., Arthur G., Cleveland, O.
Meade & Co., Richard K., Baltimore, Md.
Moes & Mess, Charlotte, N. C.,
Mount, W. D., Lynchburg, Va.
North-Eastern Constr. Co., New York.
O'Briant & Yost, Memphis, Tenn.
Ophuis, Hill & McCreery, Inc., N. Y.
Parsons, Kiapp, Brinckerhoff & Dougles,
New York, N. Y.
Rust Engineering Co., Pittsburgh, Pa.
Scoofield Engineering Co., Philadelphila,
Pa.
Bhaerer-Miller Engineering Co., Memphis,

Pa.
Shearer-Miller Engineering, Memphis. Sheary-Miller Engineering, Memphis, Tenn.
Sirrine & Co., J. E., Greenville, B. C.
Smith Co., The, Birmingham, Ala.
Stone & Websier, Inc., Boston, Mass.
Tatt & Nordmeyer Engr. Co., St. Louis.
Turner, C. A. P., Minneapolis, Minn.
Wellace & Crenshaw, Knoxville, Teen.
Wehr & Walden, Baltimore, Md.
White Engineering Corp., The J. G.,
New York, N. Y.
Widmer Engineering Co., St. Louis, Ma.
Willis, W. N., Spartanburg, S. C.

Willis, W. N., Spartanburg, S. C.

Iron and Steel Plant.

Ellis, Frank I., Pittsburgh, Pa.

McKee & Co., Arthur G., Clereland, O.

Smythe Co., S. E., The, Pittsburgh, Pa.

Inspection and Tests.

Analyzing and Inspection Service, Baltimore, M. C., Johnstown, Pa.

Camp, E. V., Atlanta, G.

Camp, E. V., Atlanta, G.

Eerkeley, W. N., Baltimore, Md.

Conard & Busby, Burlington, N. J.

Dow & Smith, New York, N. T.

Froehling & Robertson, Richmond, Te.

Hunt & Co., Robt. W., Chicago, IR.

Pittsburgh Testing Lab, Pittsburgh, Pa.

Landscape. Landscape.
Draper, E. S., Charlotte, N. C.

McWilliams Dredging Co., Chicago, Ill. Parkes Eng., Co., Pine Bluff, Ark. Speed & Kearney, Memphis, Tenn.

Byllesbr Engineering & Managemes Corp., Chicago, Ill. Ford, Bacom & Davis, New York, N. Y. Buntington & Guerry, Inc., Greenvills McCl. 2011 S. C. McCrary & Co., J. B., Atlanta, Ga. Teleco, Inc., Knoxville, Tenn.

Limeklin.
Meade & Co., Richard K., Baltimere, Md.
Mount, W. D., Lynchburg, Va.

Mechanical.
Senedict, M. C., Johnstown, Pa.
Siggs Engineering Co., W. E. Knoxville. Tenn.
Camp. E. V., Atlanta, Ga.
Day & Zimmermann, Inc., Philadelphia.
Pa. Pa. Pa. Pixie Engr. & Insulating Co., Atlanta, Ga.

Ga. Ga. Ga. Atlanta, Ga. Elser, Hermann, Balto., Md. Fordyes, John R., Bot Syrings, Ark. Klauder, Louis T., Phila., Ps. Lee. William S., Charlotte, N. C. Lide, Martin J., Birmingham, Ala. Meade & Co., Richard E., Baltimors, Md. Mess & Mees, Charlotte, N. C. Mount, W. D., Lynchburg, Va. Mount, W. D., Lynchburg, Va. Sanborn & Co. W. T., Birmingham, Ala. Tait v. Vivrimerer Engr. Co., St. Louis, Mo.

Meads & Co., Bichard K., Baltimore, Md.

Mining Clark & Krebs, Charleston, W. Va. Cunningham, W. H., Huntington, W. Va. Equenson & Associates Howard N., Pittsburg, Pa.
Intern'l Conveyor orp. New York, N. T.

Mgs.cian
Albright & Mebus, Philadelphia, Pa.
Archer & Co., E. T., Kanas City, Mo
Billingsley, Jas. W., New Orleans, L.
Black, McKennay & Stewart, Wash., D.

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Camp, E. V., Atlanta, Ga. Clark and Krebs, Charleston, W. Va. Dow & Smith, New York, N. Y. Gamett, Seelye & Fleming, Inc., Harris-Gannett, Seelye & Fleming, Inc., Harris-Jurg, Pa.

Kirce, B. H., Nashville, Tenn.

Ludlow Engineers, Winston-Saiem, N. C.

McCrary Co., J. B., Atlanta, Ga.

Parlees Eng. Co., Pine Bluff, Iowa.

White, Glibert C., Durham, N. C.

Packing-House.

Craig Engineering Co., Baltimore, Md.
Dixie Engr. & Insul. Co., Atlanta, Ga.
Wait & Nordmeyer Engr. Co., St. Louis.

Wait & Nordmeyer Engr. Co., St. Louis.

Albright & Mebus, Philadelphia, Pa. Archer & Co., E. T., Kansas City, Mo. Billingsley, Jas. W., New Orleans, La. Black, McKenney & Stewart, Wash., D. C. Cansp. E. V., Atlania, Ga. Co., Wink, M. C. Dow & Smith, New York, N. T. Dow & Smith, New York, N. T. Canspilla, M. C. Canspilla, M. C. Wink, M. S. C. William, M. N., Spartanbur, S. C. William, M. N., Spartanbur, S. C. William, M. N., Spartanbur, S. C.

Public Service Properties.

Avram & Co., Inc., M. H., New York.

Byllesby Engineering & Management
Corp., Chicago, Ill.
Cooper & Co., Hugh L., New York.
Day & Zimmermann, Inc., Phila., Pa.
Ford, Bacon & Davis, New York, N. Y.

Parsons, Klapp, Brinckerhoff & Douglas,
New York, N. Y.

Boblisson & Co., Inc., Dwight P., N. Y.

Boofield Engineering Co., Philadelphia.

Bione & Welster, Inc., Boston, Mass.

Wile., Fencie E., Washington, D. C.

Wile., Fencie E., Washington, D. C.,
New York, N. Y.

New York, N. Y.

Railroad.
Clark & Krobs, Charleston, W. Va.
Intern'i Conveyor Corp., New York, N. Y.
Meee & Mees, Charlotte, N. C.
Willis, W. N., Spartanburg, B. C.

Refrigerating.
Machine Co., Inc., Omaha, Refrigerating.

Baker Ice Machine Co., Inc., Omaha, Nebraska.

Nebraska.

Bixie Engr. & Insulating Co., Atlanta.

Hawley, Chas. B., Washington, D. C.

Hunt Engineering Co., Kansas City, Ma.

Ophuls, Hill & McCreary, Inc., N. T.,

Patt & Nordmeyer Engr. Co., St. Louis.

Ophula, Hill & McCreary, Inc., N. T.

Tait & Nordmeyer Engr. Co., St. Louis.

Reinferced Cenereta. (Bridges
Buildings, Etc.)

Boyer, Baum & Co., St. Louis, Me.
Camo, E. V., Atlants. Ga.
Carolina Engr. Co., Wilmington, N. C.
Carolina Engr. Co., Clarkaburg, W.
Ya.

Freeland, Boberts & Akers, Nashville.
Freston & Van Valkenburg, Dallas, Tex.
Gardner & Howe, Memphis, Tenn.
Greiner & Co., J. E., Baltimore, Md.
Long Co., M. A., The, Baltimore, Md.
Long Co., M. A., The, Baltimore, Md.
Luten, Daniel B., Indianapolis, Ind.
McDerlit-Fleming Co., Charlotte, Tems.
Meade & Co., Richard K., Baltimore, Md.
Parsons, Kiapp, Brinckerhoff & Douglas,
New York, N. Y.

Seberman Machine & Iron Works, N. S.,
Oklahoma City, Okia.

Steel, Jr., J. A., Knoxville, Tenn.

Tucker & Laxion, Charlotte, N. C.

Turner, C. A. P., Minneapolis, Minn.

White Engineering Corp., The J. G.,
New York, N. Y.

Sewerage and Water-Werka.

Albright & Mebus, Philadelphis, Pa.

New York, N. T.

**Willis, W. N., Spartanburg, S. C.

**Bawerage and Water-Works,

**Albright & Mebus, Philadelphia, Pa.

**Archer & Co., E. T., Kansas City, Mo.

**Banis & Craig, New York, N. T.

**Black & Veatch, Kansas City, Mo.

**Camp, E. V. Atlanta, Ga.

**Carolina Engr. Co., Wilmington, N. J.

**Fordyes, John R., Hot Springs, Ark.

**Elyre, B. H., Nashville, Tenn.

**Lodlow Engineering Co., Pine Bluff, Ark.

**Elyre, B. H., Nashville, Tenn.

**Lodlow Engineering Co., Pine Bluff, Ark.

**Sandors & Sweeney, Anderson, B. C.

**Wallace & Laton, Komphis, Nan.

**Tucker & Laton, Komphis, Nan.

**Tucker & Laton, Komphis, Nan.

**Tucker & Laton, Konzville, Tenn.

**Wellace & Creachay, Knozville, Tenn.

**Wellace & Creachay, Knozville, Tenn.

**Wellace & Loton, Durham, N. C.

**Willis, W. N., Spartanburg, B. C.

**Street Werk and **Rolling Wills

**Elils, Frant I., Pittsburgh, Pa.

**Street Werk & Lebergh, Pa.

**Street Werk and **Bolling Wills

**Elils, Frant I., Pittsburgh, Pa.

**Street Werk & Lebergh, Pa.

**Street Werk and **Bolling Wills

**Elils, Prant I., Pittsburgh, Pa.

**Street Werk & Lebergh, Pa.

**Street Werk and **Bolling Wills

**Elils, Prant I., Pittsburgh, Pa.

**Street Werk & Lebergh, Pa.

**Street Werk and **Bolling Wills

**Elils, Prant I., Pittsburgh, Pa.

**Street Werk & Lebergh, Pa.

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Structural Steel.

Structural Steel.

Freeland. Roberts & Akers, Nashvilla
Freeland. Roberts & Akers, Nashvilla
Freeland. Roberts & Akers, Nashvilla
Freeland. Roberts & Loss
Belter & Loss
Actanta, Ga.

Tarrart. C. a. Winnesonilla, 4inn.

Textile Mills.

Lockwood, Greene & Co., Roston, Mass.
Long Co., M. A., The Baltimore, Md.
Main, Chas. T., Boston, Mass.
Sanders & Sweeney, Anderson, S. C.
Sirrine Co., J. E., Greenville, S. C.
ventilating and Heating.
Biggs Engineering Co., W. E., Knoxville.

ENGINES.

Compressed Air.

Dake Engine Co., Grand Haven Mich.

Corliss.
Nordberg Mfg. Co., Milwaukee, Sun Shipbuilding Co., Chester, Pa.
Vilter Mfg. Co., Milwaukee, Wis.

Vilter Mfg. Co., Milwaukee, Wis.

8s and Sasoline.

8essemer Gas Engine Co., Grove City, Pa.

8luford & Co., I. Richmond, Va.

Construction Machinery Co., Waterloo, Ia.

Parpen Mch. Co., New York, N. Y.

Domestic Engine & Pump Co., Shippensburg, Pa.

Pairbanks-Morse & Co., Chicago, Ill.

Foos Gas Engine Co., Springfield, O.

Nat. Transit Pump & Mch. Co., Oll

City, Pa.

Wright Machine Co., Owensboro, Ky.

Mundy Hoisting.
Mundy Hoisting Engine Co., J. S.,
Newark, N. J.
Nordberg Mg. Co., Milwaukee, Wis.
Stroudsburg Engine Works, Stroudsburg,
Pg.

Kerosene.
Muncie Oil Engine Co., Muncie, Ind. Muncie Oil Engine Co., Muncie, Ind.

Busch-Sulzer Bros.-Diesel Engine Co.,
St. Louis, Mo.

Curtis Bay Copper & Iron Works, Inc.,
Baltimore, Md.

Ellicott Machine Corp., Baltimore, Md.

Wright Machine Co., Owensboro, Ky.

Ellicott Machine Corp., Battimore, Mo. Wright Machine Co., Owensboro, Ky.

Oil,
Bessemer Gas Eng. Co., Grove City, Ps. Buckeye Machine Co., The, Lima, O. Busch-Sulser Bros.-Diesel Engine Co., St. Louis, Mo.
De La Vergne Mch. Co., New York, N. Y. Fairbanks-Morse & Co., Chicago, Ill. Foos Gas. Engine Co., Springfield, O. Fulton Iron Works, St. Louis, Mo. Fulton Iron Works, St. Louis, Mo. Ingernoil-Rand Co., New York, N. Y. McMillan, A., Chicago, Ill. Muncle Oil Engine Co., Muncle, Ind. Nat. Transit Pump & Mch. Co., Oil City, Pa.
Nordberg Mfg. Co., Milwaukee, Wis.
Parks of Milling Co., The, Marion, O.
Weright Machine Co., Owensboro, Ky.

Oil and Diesel.

Oil and Diesel.

Busch-Sulzer Bros.-Diesel Engine Co.,
St. Louis. Mo.
Pulton Iron Works, St. Louis, Mo.

Fulton Iron Works, St. Louis, Mo. Steam.

Allis-Chalmers Mfg. Co., Milwaukee, Wis. Buffalo N. Y., Caldwell & Co., E. R., Bradford, Pa. Cole Mfg. Co., B. D., Newman, Ga. Erie City Iron Works, Erie, Pa. Erie Pump & Eng. Was, Medins, N. Y. Harris Bros. Co., Chicago, Ill. Houston, Stanwood & Gamble Co., Cinfinati, O., Leffel & Co., James, Springfield, O. Lombard Iron Works & Supply Co., Augsta, Ga.

Lombard Iron Works & Supply Co., Augsta, Ga.
McMillan, A., Chicago, III.
Morris Mch. Wka. Baldwinsville, N. Y.
Motter's Sons, Geo. F. York, Pa.
Murray Iron Wks. Co. Burlington, Iowa.
Nat. Transit Pump & Mch. Co., Oil
City, Pa.

City, Pa.
Nordberg Mfg. Co., Milwaukse. Wis.
Randle Machinery Co., Cincinuati, O.
Behofield's Tron Works, Macon, Ga.
Baterius,
Hadfield-Benfield Steel Co., Sucryrus, O.
Mundy Hoisting Engine Co. J.
Newark, N. 3.

Traction.

Austin-Western Road Mchy Co., Chicago, Holt Mfg. Co., Inc. The Peorls, Ill.

ENVELOPES. Smith Co., Oscar f. Baltimore, Md. Young & Selden Co. Haltimore, Md. EXCAVATING MACHINERY.

Ball Eng Co., (Erle Steam Shorel Co.,)
Erle, Pa
Bay City Dredge Works. Bay City. Mich.

Buckeye Traction Diteber Ce., Findlay.

0 O.

Bueyrus Co. South Milwauks, Wis. Hawward Co. The, New York, N. Y. Hawward Ed. The, New York, N. Y. Intar-State Mehy, Core Philadelphis Keystone Driller Co., Beaver Falls, Pa. Marion Steam Show, Co., Marion, O. Monighan Machine Co., Chicago, Ill. Osgood Co., The, Marion, O. Owen Bucket Co., The Cleveland, O.

EXCAVATO.

Cableway, Dragling Co., (Eric Steam Shovel Co.,) Ball Eng. Co., (Erie Steam Shorel Co Erie. Pz. Clerie Steam Shorel Co Erie. No. (South Milwaukee, Wis. Buegrus Co., South Milwaukee, Wis. Byers Machine Company, Ravenna, O., Model Company, Co., Marion, O., Mindy Hoisting, Co., Marion, O., Model Company, Co., Marion, O., Mario, Co., J. C., Marion, O., Mario, C., J. S., Suerman Bros., Chicago, Ill.

Ball Eng. Ce. (Erie Stm. Shov. Co.), Erie, Pa. Buckeye Traction Ditcher Co., Findlay, O.

Bucyrus Co., South Milwaukee, Wis. Hayward Co., The, New York, N. Y. Inter-State Mehy. Corp., Phila., Pa. Keystone Driller Co., Beaver Falls. Monighan Machine Co., Chicago, Ill. Pa.

EXHAUST HEADS, Abendroth & Root Mfg. Co., Newburgh, N. Y. N. Y.
American Spiral Pipe Wks., Chicago, III.
Sims Company, Erie, Pa.
EXIT DEVICES.
Vonnegut Hardware Co., Indianapolis. EXP. METAL LATH REINFORCING. Southern Steel Products Co., Richmond,

outhern Steel Products Co., Richmond, Va. Vickwire-Spencer Steel Corp., Worcester, Mass.

EXPLOSIVES.

Atlas Powder Co., Wilmington, Del.
Du Pont de Nemours & Co., Inc., E. I.,
Wilmington, Del.

Hercules Powder Co., Wilmington, Del. FACTORY COLUMNS.
Cordele Sash, Door & Lumber Co., Cordele, Ga.

Gese, Gs.

FACTORY SITES. (Town and Bailroad.)
(See Industrial, Agricultural and
Commercial Opportunities.

Birmingham Realty Co., Birmingham,Ala.
Martien & Co., Wm., Baltimore, Md.

FASTENERS,
Corrugated Steel.
Descript, N. Y. Carry Mrg. Co. Brooklyn, N. Y.
Box Corner, Bung.
Cary Mrg. Co., Brooklyn, N. Y.
Cary Mrg. Co., Brooklyn, N. Y.
Cary Mrg. Co., Brooklyn, N. Y.
FEED-WATER HEATERS AND PURIFIERS.

FIERS.

American Water Softener Co., Phila., Pa., Erie City Iron Works Co., Erie, Pa., Murray Iron Works Co., Burlington, Ia., Permutit Co., New York, N. Y., Worthington Pump & Mchy. Corp., N. Y. Open and Closed.

Sims Company, Erie, Pa., FELT. (Building Sheathing.)

Barrett Co., New York, N. Y.

Barrett Co., New York, N. Y.
FENCING.
Weven.)
American Fence Construction Co., N. T.
American Steel & Wire Co., Chicago, Ill.
Cyclone Fence Co., Waukegan, Ill.
Midvale Steel & Ordnance Co., Philadelphia, Pa.
Pittsburgh Steel Co., Pittsburgh, Pa.
Wickwire-Spencer Steel Corp., Worcester,
Mass.

Galvanized, Concrete.

Amer. Sheet & Tin Plate Co., Pitts., Ps., Iron. (Ornamental.)

Cyclone Fence Co., Waukegan, Ill. Steel, Wire).

FENCING, ENTRANCE GATES. (Iron, Steel, Wire).

American Fence Construction Co., N. Y.

American Steel & Wire Co., Chicago.

Cyclone Fence Co., Waukegan, Ill.

Dulur & Co., Baltimore, Md.

New Jersey Wire Cloth Co., Trenton, N. J.

Stewart Iron Wks. Co., Inc., Cincinnati, FERTILIZER MACHINERY.
Charleston Dry Dock & Mch Co., Charleston Dry Dock & Mch Co., Charleston, S. C. Raymond Bros. Imp. Pulv. Co., Chicago.

FiBRE. (Vulcanized.)
Sheets, Rods, Tubes, Special Parts.
Diamond State Fibre Ca., Bridgeport, I Files.
Barnett Co., G. & H., Philadelphia, P.
Nicholson File Co., Providence, B.

Nicholson File Co., Providence, R. I. FILTERS.
For Demestic & Industrial Purpess.
American Water Softener Co., Phila., Pa.
Eagle Mfg. Co., Wellsburg, W. Va.
International Filter Co., Chicago, III.
Permutit Co., New York, N. Y.
Pittsburgh Filter & Engr. Co., Pitts, Pa.
Refinite Company, Omaha, Neb.
Roberts Filter Mfg. Co., Darby, Pa.
Scaife & Sons Co., Wm. B., Pittsburgh.
State Coul.

iny, Erie, Pa. Sime Com

Sims Company, Marky,
FINANCING:
Chamberlain & Co., Inc., Lawrence, New
York, N. Y.
Electic Bond & Share Co., New York.
Jones & Baker, Baltimore, Md.
Miller & Co., G. L., Atlanta Ga.
North American Savings & Loan Co.,
Dallas Texas

Darias. Texas

Fire C.Av

Ashland Fire Brick Co., Ashland, Ky.
Camoric Clay Products Co., Blackfork, O.
Cannelton, Sewer Pipe Co., Cannelton,
Ind

Creen Pipe Co., Cannelton,
Creen Pip Ind Green Fire Brick Co., A. P., Mexico, Mo. Howard Refractories Co., Dorsey, Md. rope Co., The Frank B., Pittsburgh, Pa. Portsmouth Refractories Co., The, Portsouth b Portsmouth Refractories mouth. O., Savage Mountain Fire Brick Co., Frostburg. Md. West, Va. Fire Clay Mfg. Co., Pitts., Pa.

FIRE CLAY FLUE LININGS.
Stevens Brns. & Co., Stevens Pottery, Ga. FIRE ESCAPES.
Chesapeake Iron Works. Baltimore, Md.
Dow Co., The, Louisville, Ky.

FIRE-EXIT LATCHES. Vonnegut Hdw. Co., Indianapolis, Ind. FIRE EXTINGUISHERS.
Myers & Bro. Co., F. E., Ashland, O.

FIREPLACES, (Brick and Tile.) FIREPROOF BUILDING MATERIAL. Bannan Pipe Ce., P., Louisville, Ky. Robertson Co., H. H., Pittsburgh, Pa. Marbleloid Co., The, New York, N. Y.

PIREPROOF DOORS AND SHUTTERS,
Dahistrom Metallic Door Ca., Jamestown, N. Y.
Kinnear Mrg. Co., Columbus. O.
Mosechi-Edwards Corrugating Co., Ctacinnati, O.
Richmond Safety Gate Co., Richmond,
Ind.

Lenderking, Philip H., Baltimore, Md. FIREPROFING. (Brick and Tile.) Hood Brick Co., B. Mille, Mille, Alexandro, Ca. (B. Mille, Alexandro) and Ca. (B. Mille, Alexandro).

FLANGES.

FLANGES.
Iron and Steel.
Amer. C. I. Pipe Co., Birmingham, Ala.
American Spiral Pipe Wiss., Chicago, III.
Dart Mfg. Co., E. M., Providence, B. I.
Natl. Cast Iron Pipe & Foundry Ca.,
Burlington, N. J.
Vogt Machine Co., Henry, Louisville, Kp.
Wood & Co., H. D., Philadelphia, Pa.

FLEXIBLE SHAFTS. Strand & Co., N. A., Chicago, Ill.

FLOORING

Gamposities.

Marbleloid Co., The, New York, N. I.

Cressoted Blocks.

Long-Bell Lumber Co., Kansas City, Ma.

Hardwood, Maple, Oak.
Long-Bell Lumber Co., Kansas City, Ma.
McEwan Lumber Co., Norfolk, Va.
Nashville Hardwood Flooring Ca., Chicago. Whiting Co., Wm. S., Elisabethton, Tenn. Whiting Co., Win. S., Siliasoution, Yana.
FLOOR HARDENER. (Concrete.)
Sonneborn Sons, Inc., L., New York.
FLOOR PLATES AND STAIR TREADS,
Ryermon & Son, Jos. T., St. Louis and
New York.

FLOOR PLUGS. Van Dorn Iron Wks. Co., The, Clere-land, O.

FLOUR. (Greenstone.) Greenstone Products Co., Roanoke, Va FLOUR AND GRIST-MILL MCHY. AND SUPPLIES. Caldwell & Son Co., H. W., Chicago, IB FLUME. (Wood.) Continental Pipe Mfg. Co., Seattle, Wash.

FLUE LINING.
Owenshoro Sewer Pipe Co., Owenshore,

Ciay.

Oconee Brick & Tile Co., Milledgeville,
Ga. FLUSH-TANK SIPHONS.
Pacific Flush-Tank Co., New York, N. Y.

FORGES. Buffalo Forge Co., Buffalo, N. Y. Oil Burning. Hauch Mfg. Co., Brooklyn, N. Y.

Bethlehem Steel Co., Bethlehem, Ps. Columbus Forge & Iron Co., The, Columbus, O.

Railway and industrial.

Laclede Steel Co., St. Louis, Mo.
Midvale Steel & Ordnence Co., Philadelphia, Pa.
FORMS FORMS, STEEL. (For Concrete ,Culverts, Roads, Streets, Bidewalks, Tiles,

etc.)
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Continental Pipe Mfg. Co., Seattle, Wash
Davis & Son, G. M., Paiatka, Fla.
Hauser-Stander Tank Co., Cincinnati, O
Pacific Tank & Pipe Co., San Francisce, 921

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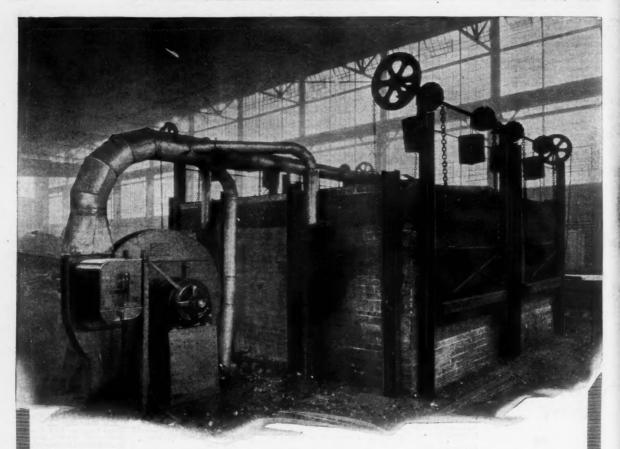
Alphabetical Index of Advertisements

			000000000000000000000000000000000000000	
A	Biggs Engineering Co., W.E. 49 Billingsley, James W	Church & Dwight Co	D 1 C . M 7 191	
A-239		Cincinnati Iron & Steel Co. Clark & Krebs	Draper Corporation 54 Draper, E. S. 54 Drouve Co., The G. 30	Greiner, J. E
Advance Co 31	Birmingham Realty Co105 Birmingham Rail & Loco. Co	Classified Opportunities	Dufur, Baggott & Co 30	Griffith, Jas. F
Air-Tight Steel Tank Co 21 Alabama Company 26 Albright & Mebus 48	Co	Co	Duncan, James H	Gulfport Creosoting Co 40 Gulf Refining Co 17 Gulf States Portland Ce-
Allen Engineering Co		Clinchfield Portland Cement Corp. 128 Cohen & Sons, Louis. 116	Co	ment Co 128
Allen Eng. & Mfg. Co 138 Allis-Chalmers Mfg. Co 130 Allison, Walter A 48	Blystone Mfg. Co †	Coldwell-Wilcox Co	E	Hadfield-Penfield Steel
Alpha Photo Eng. Co	Boiler Tube Co. of America Bonney Supply Co*	Cole Mfg. Co * Cole Mfg. Co., R. D 21 Coleman Shoemaker Co 110 Collins Granite Co 127	Eagle Manufacturing Co 10 Earle Gear & Machine Co.134 East Iron & Machine Co.,115	Haisa Mfg Co. Geo. 130
merican Cement Machine	Bourbon Copper & Brass	Colonial Supply Co	Eavenson & Associates, Howard N. 48	Hall & Co. Inc., Stephen10: Hamburg Boiler Works2 Hammond Byrd Iron Co13 Hammond Heating Co
Co., Inc	Box & Co., Inc., Alfred	Columbian Iron Works Co.132 Columbian Rope Co	Eco Clock Co	Hampton Roads Equipment Co
merican Chain Co., Inc 120 merican Cotton Oil Co., 96 merican Creosote Works,	Brenholts, Roy 109 Briddell Co., Inc., W. C. 116 Brier Hill Steel Co. 25	Columbus Forge & Iron Co. * Consrd & Buzby	Electric Bond & Share Co. * Electric Controller & Mfg.	Harrington & King Perfor- ating Co
Inc	Co. 54	Concrete Steel Co	Co	Harris Bros. Co11 Hartley Boiler Works1
Tile Co	Brooks Supply Co	Co	Ellicott Machine Corp127	Hauck Mfg. Co Hauser-Stander Tank Co Hawley, Chas. B
tion Co	Buckeye Blower Co 51 Buckeye Equipment Co 1	Continental Fibre Co	Ellis, Frank I	Hayward Co
merican Pattern Wks. Co. †	Buckeye Traction Ditcher 1	Continental Machinery Co. 11 Continental Pipe Mfg. Co.133 Converse Bridge & Steel Co. 28	Empire Refineries, Inc	Heltzel Steel Form & Iron Co
merican Pulley Co	Buffalo Forge Co	Cook & Laurie Gravel Co127	Erie Machine Shops	Co
mer. Sheet & Tin Plate Co. 28 merican Spiral Pipe Wks.	Busch-Sulzer Bros. Diesel		Division 52	Herfurth Engine & Machinery Co
merican Steel & Wire Co 13 merican Telephone & Tele- graph Co ‡	Byllesby Eng. & Manage- ment Corp 49	Co 40	Exch'g Sawmills Sales Co ‡	High Point Machine Works Hill & Griffith Co
mer. Water Softener Co * merican Window Glass Co *	C	Corporation Service Co * Cortright Metal Roofing Co. * Courier-Journal Job Print-	Fairbanks, Morse & Co ‡ Falcon Steel Co	Hitner's Sons Co., Henry A.11 Hochstadter Laboratories.
merican Zinc Products Co.33 nalyzing & Inspection Service	Cabot, Inc., Samuel 41	ing Co	Farris Bridge Co	Hoisting Engine Sales Co1 Hoisting Machinery Co1 Holt Mfg. Co. Inc
rcher & Co., E. T		Crane Co 6	Fawcus Machine Co	Holt Mfg. Co. Inc
retic Ice Machine Co	Camp & Associates, E. V., 49	Crocker-Wheeler Co	First Nat. Bank, Richmond	Houston, Stanwood & Gam- ble Co Howard Refractories Co 1
rmstrong Mfg. Co	Cannelton Sewer Pipe Co134 Cantol Wax Co	Works	Va	Hughes Specialty Well Drilling Co Hunt & Co., Robert W
shland Fire Brick Co 12 tkins & Co., E. C., Inc138 tlanta Bolt & Steel Prod-	Canton Art Metal Co	Curtis Bay Copper & Iron Works	ion Co	Hunt Eng. Co
tlanta Terra Cotta Co 34	Cardwell Machine Co., The 139	Custodis Chimney Con-	Ford, Bacon & Davis	Hyde & Co1
tlantic Elec. Co	Carey Co., Thos. F	struction Co., Alphons 6 Cutler Mail Chute Co 30 Cyclone Fence Co 22	Foundation Company	India Alkali Works
tlas Powder Co	Carolina Engineering Co 48 Carolina Portland Cement		Frank, M. K	man's Asso
Co	Co	D	Freeport Gas Co	International Clay Machin-
В	L/me Co 30		Fulton Iron Works	ery Co
tahanak & Wilson Co &	Cary Mfg. Co	Dahlstrom Metallie Door Co	G	International Filter Co International Steel & Iron Co
		Davis, J. F. 106 Davis & Son, G. M. *	Gardner & Howe	fronton Boiler Works
Bailey-Lebby Co	Chain Belt Co \$	Day & Zimmerman, Inc 49		Jaeger Mach. Co
Ball Engine Co	Champion Bridge Co 29	De Laval Steam TurbineCo.135	General Electric Co	Jaeger Mach. Co
Banks & Craig	chine Co	De La Vergne Mch. Co * Delaware Registration Trust	General Purchasing Agts.,	Jenkins Bros
Barber Asphalt Paving Co. Barnes Mfg. Co	Charlotte Elec. Repair Co † Chattanooga Armature Wks 13	Deverell, H	Georgia-Carolina Brick Co.105	Jones & Baker
Barrett Company 91	Chattanooga Boiler & Tank	Diamond State Fibre Co 1 Dietrich Bros		K
Basic, Va	Chattanooga Paint Co	Dixie Engineering & Insu-	Gordon Metal Co 37	Karasik, Friedman & Co. Inc 1 K. C. Elevator Mig. Co
Renedict M. C. 50	Cheenpeake Relting Co 14	Dixie Portland Cement Co.128	Grant Supply Co. Chas. W. 113 Great Southern Lumber Co. \$	Kemp Machinery Co
Benjamin Equip. Co., Harry Berger Mfg. Co. of Texas131 Berkeley, W. N	Chicago Pneumatic Tool Co.	Dorchester Lbr Co112	Greenbrier, Cheat & Elk R. R. Co	Keystone Driller Co134-1 Keystone Tank & Boiler Works
Berry Bros	Works 46	Dorman Co., J. F. W 96 Doubleday Hill Elec. Co	Green, L. A	Kilby Frog & Switch Co1 Kimball Bros Co

1.

+

ing Co., Inc., F. E	Michigan Pipe Co133 Mid-Continent Equipment	Pennsylvania Pump & Com- pressor Co119	Shepard Electric Crane & Hoist Co	U
ingsport Brick Corp 35	Co109-115	Permutit Co., The	Sherman Machine & Iron Works, N. S	Underwood-Walker Co.,
innear Mfg. Co	Midvale Steel & Urd. Co 4	Corp	Sherwood, E. C	Inc., The Union Drawn Steel Co
irby-Bonner, Lumber Co. ‡	Milburn, Heister & Co 48 Miles Machinery Co106-112	Pfannmueller Engineering	Shook & Fletcher Supply Co.115 Shreveport Blow - Pipe &	Union Mining Co
irknatrick Lumber & Tim-	Miller & Co., Inc., G. L	Co*	Sheet Iron Works, Ltd 138	Union Sulphur Co United Iron Works, Inc
ber Co	Mills Contractors Equip	Photostat Corp 1	Sidney Elevator Works : Simmons Machine Co106	United Railway Supply Co Universal Road Mchy. Co
lyce, B. H 48	Minter Homes Corporation 1	Pick & Co., Albert	Sims Cc., The 9 Simsohn, Julian S. 48	U. S. Cast Iron Pine & Fdr
ries & Sons, Henry A 105	Model Land Co	Co113	Sirrine & Co., J. E	Co
ries & Sons, Henry A 105	ting Co 31	Pittsburgh-Des Moines	Sirrine & Co., J. E	3.7
	Moffatt Mehy. Mfg. Co 37 Monarch Machine Tool Co. 16	Steel Co	Smith Co., Oscar T 96	V
L	Monighan Machine Co † Monroe, La., Chamber of	Pittshurgh Machinery &		Van Dorn Iron Works C
	Commerce 104 Montague Co., W. R. 109	Equipment Co105	Smith Co., The	Vendor Slate Co
clede Steel Co	Montague Co., W. R	Pittsburgh Steel Co	Smythe Co., S. R 50	Vilter Mfg. Co
kewood Engineering Co.:	Moore Dry Kiln Co † Morgan Construction Co 4	tory 50 Pope Co., Frank B. 12	Snead Architectural I r o n Works	Virginia Mchy. & Well C
The 93 mbert Co., H. T. 116	Morgan Construction Co 4 Morgan Millwork Co 40	Porter Co., H. K. 119	Sonneborn Sons, Inc., L 1	Inc. Vogt Machine Co., Henry
neaster from Works, Inc.	Morris Machine Works134	Porter Co., H. K. 119 Portsmouth Refractories Co 12	Southern Creceoting Co., Ltd. 40	Vonnegut Hardware Co
ne Equip. Co., T. J115	Morrison Co., Hackley Morse Agricultural Service.	Pottstown Steel Co111 Powell Co., Wm	Southern Cypress Manufac-	w
ne Mfg. Co	Morse Chain Co 15	Power Mfg. 'o 4	turers' Assn	W
ffel & Co., James	Morse Agricultural Service Morse Chain Co	Power Piping Co	Southern Electro Steel Co.,	Wadsworth, Howland & (
nderking, Philip H	Mount, W. D. 50 Mueller Metals Co. 45		Inc. 44 Southern Hotel †	Wagner Electric Mfg. Co
berty Blow Pine Works 138	Mundt & Sons, Chas	Progressive Mig. Co 40	Southern Ice Machine Co 11 Southern Iron & Equip. Co.116	Wallace & Crenshaw Wall Mfg. Supply Co., P.
de, Martin J	Mundy Hoisting Engine Co.	Proposal Advertisments	Southern Metal Co 21	Walsh & Weidner Boiler C
	J. S	Protexol Corp. 40 Pulsometer Steam Pump	Southern Mosaic Tile Co 35 Southern Paving Constr.Co. 40	The War Department
Co	Murray Iron Works Co * Myers & Bro. Co., F. E 134	Pulsometer Steam Pump	Southern Sheet & Tin Plate	Warner Petroleum Co
nk Belt Co156	Myers & Bro. Co., F. B 101	Co	Co	Warren Bros. Co Warsaw Elevator Co
quid Despatch Line	N		Co 128	Waterfront & Foundati Construction Co10
mbard Iron Works & Sup-	NT L 1 1 100 100 100	R	Southern Steel Products Co. 28	Weber Co., F
ply Co	Nashville Ind. Corp106-109-109 National Bank of Com-		Southern Textile Machinery Co139	Wehr & Walden
ong Bell Lumber Co	merce, in New York 97	Raleigh Smokeless Fuel Co 2	Southern White Cedar Pole	Weir Frog Co Weller, Francis R
okout Boiler & Mfg. Co. adlow Engineers, The 49	National Blow Pipe & Mfg. Co., Ltd	Randle Machinery Co111 Ransome Concrete Mchy.	Co	Weller Mfg. Co.
idlow-Saylor Wire Co 30	National Boiler ProtecterCo. † National Cast Iron Pipe Co.133	Co	Co	Wells, George H. Westbrook Elevator Co.,
idlow Valve Mfg. Co132 idowici-Celadon Co36	National Cement Co128	Co119	Southside Fdry & Mch Wks *	J. Westbrook Elevator M
mkanhaiman Ca	National Conveying Equip.	Raymond Mfg. Co., Ltd 14 Reading Chain & Block	Speed & Kearney 50	Co., Inc.
ipton's Sons Co., David * aria Bros. Co	National Laboratories, The 50	Corp *	S. P. F. Wood Preserving Co., Inc	Western Tool & Mfg. Co Westinghouse Electric &
steher & Moore Lumber	National Lumber Manu-	Road & Dunackas	Cost 2200000000000000000000000000000000000	The second secon
O- AUGUST TOTAL OF THE PARTY OF	facturers Assn. 1	Roady Elevator Co 37	Spiker & Lose 50	Mig. Co
CO 9U	National Pressed Steel Co.,	Reedy Elevator Co	Spray Engineering Co †	Westinghouse Traction Brake Co.
iten, Daniel B	facturers Assn	Reeves Pulley Co	Spray Engineering Co † Standard Brick Co	West Virginia Fire Cl
iten, Daniel B	facturers Assn. National Pressed Steel Co., The	Regnas & Co., J. R. 42 Reid, J. G. 48	Spray Engineering Co † Standard Brick Co	West Virginia Fire Cl
iten, Daniel B	facturers Assn	Regnas & Co., J. R. 42 Reid, J. G. 48 Renneburg & Sons Co.,	Spray Engineering Co	Brake Co. West Virginia Fire Cl Mfg. Co. West Virginia Rail Cc West Virginia Rail Cc
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CO.	facturers Assn. \$\) National Pressed Steel Co., The. \$\) National Steel Fabric Co \$\) National Steel Rail Co \$\) Meh. Co \$\) National Transit Pump & Meh. Co \$\) National Tube Co \$\) National Water Supply Co.135 Naville. Mel Ver. Barnes &	Regnas & Co., J. R. 42 Reid, J. G. 48 Renneburg & Sons Co., Edw. 46 Republic Iron & Steel Co. 8 Richards-Wilcox Mig. Co. 4 Richards-Wilcox Mig. Co. 5 Richards-Wilcox Mig. Co. 5 Richards-Steel Steel	Spray Engineering Co	Brake Co. West Virginia Fire Cl Mig. Co. West Virginia Rail Co Wetherill & Co., Inc., Ro Wheeling Steel Products C Whitcomb Co., Geo. D. White Construction C
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Co. 400 Iten, Daniel B. 48 Iter, Clark A. 48 IM CCalla Co., Harold	facturers Assn. S National Pressed Steel Co., The. S National Steel Fabric Co. 1 National Transit Pump & Mch. Co. 1 National Tube Co. 1 National Tube Co. 1 National Tube Co. 5 Neville, McIver, Barnes & Co. 6 Newman Clock Co. 5 Newman Clock Co. 5 Nicholson File Co. 5 Nicholson File Co. 5 Nicholson File Co. 5 Nitro Supply Co. 1 Nicholson File Co. 5 Nitro Supply Co. 1 Northory McG. 5 Northory McG. 5 North America Savings & Loan Co. 1 North-Eastern Const. Co. 1 North-Eastern Const. Co. 2 North-Eastern Const. Co. 3 North-Eastern Const. Co. 2 North-Eastern Const. Co. 3 North-Eastern Const. Co. 2 North-Eastern Const. Co. 3 North-Eastern Const. Co. 4 North-Eastern Const. Co. 5 North-Eastern Const. Co. 6 Norwalk Iron Works Co. 10 O'Briant & Yost. 9 O'Briant & Yost. 6 O'Brien, Francis E. B. 115 O'Brien Machinery Co. 106 Conce Brick & Tile Co. 3 O'Brien Machinery Co. 4 O'Brien Machinery Co. 4 O'Brien & Steel Co. 4	Regnas & Co., J. R. 42 Reid, J. G. 48 Renneburg & Sons Co., Edw. 46 Republic Iron & Steel Co. * Richards-Wilcox Mfg. Co. † Richmond Safety Gate Co. 31 Richmond Safety Gate Co. 31 Richmond Safety Gate Co. 31 Richmond Structural Steel Co. 29 Ridgway & Son Co. 37 Ripley Förry, & Meh. Co. * Riter-Conley Co. 10 Roberts Filter Mfg. Co. 10 Roberts Filter Mfg. Co. 10 Roberts Go., J. H. 38-30 Robins & Co., A. K. † Robins Conveying Belt Co. 130 Robinson & Cor., Wight F. 49 Robinson & Cor., Wight F. 49 Robinson & Cor., John A.125 Rollins, Hugh 103 Ross-Meehan Foundries, 44 Rust Engineering Co. 6 Russell Machine Co. 112 Ryerson & Son, Jos. T. 3 S Salem Fdy. & Meh. Wks. 44 Samler Bros. Co 2 Samson Cordage Co. 1 Sanborn & Co., W. T. 44 Sanders & Sweeny. * Sauerman Bros. 8 Savage Mountain Fire Brick Co. 12 Savannah Blow Pipe Co. 12	Spray Engineering Co. \$ Standard Brick Co. \$ Standard Brick Co. \$ Standard Electric Machinery Co. \$ Standard Pressed Steel Co. \$ Steel & Sons, J. C. 32 Steel & Co. \$ Stimpson, Edwin B. \$ \$ Stone & Webster, Inc. \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Brake Co. West Virginia Fire Cl Mig Co. West Virginia Rail C Wheeling Steel Products Whitcomb Co., Geo. D. White Construction C Inc. White Engineering Corp ation, The J. G. White Galk Corporation. White Co., Wing S. Whitins Ville Spinning Ri Co. Wickwire Spencer Steel Corp. Widmer Engineering Co. Wickwire Spencer Steel Corp. Widmer Engineering Co. Williams Panent Crusher Pulverizer Co. Milliand F. William Fatent Crusher Pulverizer Co. Milliam Patent Crusher Pulverizer Co. Milliam Co., The. Wilson Co., The. Wilson Co., The. Wilson Machinery Co. Wingfield Hundley. Wood Co., Inc., A. M. Wood & Co., T. B. Wood's Sons Co., T. B. Wood's Sons Co., T. B. Woodward, Baldwin & C Wortengton Pump & Mchy, Corp.
Lecalla Co., Harold	facturers Assn. S National Pressed Steel Co., The. S National Steel Fabric Co. 1 National Steel Fabric Co. 1 National Steel Fabric Co. 1 National Transit Pump & Mch. Co. 135 National Transit Pump & Mch. Co. 135 National Transit Pump & Mch. Co. 135 Neville, McIver, Barnes & Co. 6 New Jersey Wire Cloth Co. 30 Newman Clock Co. 4 Newman Clock Co. 5 Nicholson File Co. 5 Northers Bernent-Pond Co. 1 Northers Bernent-Pond Co. 1 North-Eastern Const. Co. 2 North-Eastern Const. Co. 3 North-Eastern Const. Co. 4 North-Eastern Const. Co. 9 North-Eastern Const. Co. 1 North-Eastern Const. Co. 2 North-Eastern Const. Co. 3 North-Eastern Const. Co. 4 North-Eastern Const. Co. 6 Norwalk Ton Works Co. 10 O'Briant & Yost. 9 O'Brien, Francis E. B. 115 O'Brien Machinery Co. 106 Conee Birck & Tile Co. 4 O'Brien Machinery Co. 106 Oconee Birck & Tile Co. 4 O'Brien Machinery Co. 106 Oconee Birck & Tile Co. 4 O'Brien Machinery Co. 106 Oconee Birck & Tile Co. 4 O'Brien Machinery Co. 106 Oconee Birck & Tile Co. 4 O'Brien Machinery Co. 106 Oconee Birck & Tile Co. 4 O'Brien Machinery Co. 106 Oconee Birck & Tile Co. 4 O'Brien Machinery Co. 106 Oconee Birck & Tile Co. 4 O'Brien Machinery Co. 106 O'Brien Machinery Co.	Regnas & Co., J. R. 42 Reid, J. G. 48 Renneburg & Sons Co., Edw. 46 Republic Iron & Steel Co. 5 Richards-Wilcox Mfg. Co. 7 Richmond Safety Gate Co. 31 Richmond Safety Gate Co. 37 Ripley Füry. & Meh. Co. 8 Riter-Conley Co. 10 Robertson Co., H. 38-39 Roberts Filter Mfg. Co. 10 Robertson Co., H. H. 38-39 Robins & Co., A. K. 1 Robins Conveying Belt Co. 130 Robins Conveying Belt Co. 130 Robinson & Cor. 11 Robinson & Cor., Wm.C. 8 Robinson & Cor., Wm.C. 8 Robertson & Co., Wm.C. 8 Robertson & Son Co., John A. 125 Robinson & Cor. 10 Robinson & Cor. 11 Robinson & Cor. 12 Ryerson & Son, Jon. T. 3 S S Salem Fdy. & Mch. Wks. 44 Samler Bros. Co. 12 Samson Cordage Co. 12 Samson Cordage Co. 5 Samson Cordage Co. 5 Samson Cordage Co. 12 Samson Bros. 8 Savage Mountain Fire 18 Brick Co. 12 Savannah Blow Pipe Co. 1	Spray Engineering Co. † Standard Brick Co. * Standard Brick Co. * Standard Pressed Steel Co. † Standard Electric Machinery Co. * Standard Pressed Steel Co. † Starrett Co., L. S. 17 Steel, John A. Jr. 48 Steele & Sons, J. C. 32 Stevens Bros. & Co. 12 Stewart Electric Co., John A. * Stewart Electric Co., John A. * Stewart Iron Works Co. † Stimpson, Edwin B. † \$ Stone & Webster, Inc. 49 Strand & Co., N. A. † Stroudsburg Engine Works123 Stuebing Truck Co. † \$ Stroudsburg Engine Works123 Stuebing Truck Co. † \$ Sunter Brick Co. † \$ Sullivan Machinery Co. * \$ Sullivan Machinery Co. † \$ Stroudsburg Engine Works123 Stuebing Truck Co. † \$ Sullivan Machinery Co. 5	Brake Co. West Virginia Fire Cl Mig Co. West Virginia Rail C Wetherill & Co., Inc., Ro Wheeling Steel Products of White Construction C Inc. Inc. Inc. Inc. White Construction C Inc. White Construction C Inc. White Construction C Inc. White Construction C Inc. White Oak Corporation. Whitinsville Spinning Rt Co. Wickwire Spencer Steel Corp. Widmer Engineering Co. Widmer Engineering Co. Widmer Engineering Co. Wildmer Engineering Co. Wi
LeCalla Co., Harold 48 LeCalla Co., Harold 48 LeCalla Co., Harold 48 LeCalla Co., Harold 48 LeClintic-Marshall Co. 32 LeCoy Brandt Machinery 106 CeTary Co., J. B. 49 LeDernott Bros. Co. 109 Levitt-Fleming Co. 48 LeDonald-Churchill Corp. 26 Lewen Lumber Co. 41 LeGowan Co., John H. 134 LeGowan Co., John H. 134 LeGowan Co., John H. 134 Leanshan Stone Mch. Co. 119 Leven Contracting Co. 50 Lewen Lumber Co. 42 Chamara Bros. 42 Chamara Bros. 44 alcetta, John S. 28 allory A. 48 al-Gra Casting Co. 48 al-Gra Casting Co. 48 al-Gra Casting Co. 44 allette, John S. 28 allory Mchy. Corp. 38 andt Body Co. 51 anhattan Perl. Metal Co. 13 annistee Iron Works Co. 134 anning, Maxwell & Moore Inc. 16 arine Bank & Trust Co. 37 arine Bank & Trust Co. 37 arine Bank & Trust Co. 37 arine Metal & Sup. Co. 113 arine Matal & Sup. Co. 127 arkman Bng. Co. 60 aryland Iron & Metal Co. 113 aryland Iron & Metal Co. 113 aryland Trust Co. 97 aster Builders Co., The. 3 arhews Gravity Carrier	facturers Assn. Shattonal Pressed Steel Co., The. Shattonal Steel Fabric Co. 1	Regnas & Co., J. R. 42 Reid, J. G. 48 Renneburg & Sons Co., Edw. 46 Republic Iron & Steel Co. 5 Richards-Wilcox Mfg. Co. 7 Richmond Safety Gate Co. 31 Richmond Safety Gate Co. 31 Richmond Safety Gate Co. 31 Richmond Safety Gate Co. 32 Righey Farry. & Meh. Co. 7 Ripley Farry. & Meh. Co. 8 Riter-Conley Co. 10 Robertson Co., H. 38-39 Robins & Co., A. K. 7 Robins Conveying Belt Co. 10 Robertson Co., H. 38-39 Robins & Co., A. K. 7 Robins Conveying Belt Co. 10 Robinson & Cor. 10 Robinson & Cor. 10 Robinson & Cor. Wight P. 49 Robinson & Cor. Wight P. 49 Robinson & Co., Dwight P. 49 Robinson & Co., Dwight P. 49 Robinson & Co., To. 10 Robertson & Co., Wight P. 49 Robinson & Cor. 3 Robinson & Cor.	Spray Engineering Co. † Standard Brick Co. * Standard Coment Construction Co. * Standard Electric Machinery Co. * \$ Standard Pressed Steel Co. † Starrett Co., L. S. 17 Steel, John A. Jr. 48 Steele & Sons, J. C. 32 Stevens Bros. & Co. 12 Stewart Electric Co., John A. * Stewart Iron Works Co. † \$ Stewart Iron Works Co. † \$ Stimpson, Edwin B. \$ \$ Stone & Webster, Inc. 49 Strand & Co., N. A. † \$ Strouds bury Engine Works 123 Stuebing Truck Co. † \$ Sullivan Machinery Co. * \$ Sullivan Machinery Co. † \$ Sweet's Steel Co. 17 Sydnor Pump & Well Co., Inc. 134	Brake Co. West Virginia Fire Cl Mig Co. West Virginia Rail C. Wetherill & Co., Inc., Ro Wheeling Steel Products (White Construction Co., Geo. D. White Construction Co., Geo. D. White Construction Co., White Construction White Construction Co., White Oak Corporation. White Oak Corporation. White Oak Corporation. Whitelock Cordage Co. Whiting Co., Wm. S. Wickwire Spencer Steel Corp. Widmer Engineering Co. Wier Lumber Co., R. W. Willong Iron Works Co., Millard F. Williams Patent Crusher Pulverizer Co., Williams Patent Crusher Pulverizer Co., The. Wilson Machinery Co. Wingfield Hundley. Wood & Co., The. Wood York Sons Co., The. Wood York Sons Co., The. Worthington Pump & Mchy, Corp. Wyckoff & Son Co., A. Yale & Towne Mig. Co.
Lecalla Co., Harold	facturers Assn. \$ National Pressed Steel Co., The. \$ National Steel Fabric Co. \$ National Transit Pump & Mch. Co. \$ 135 National Transit Pump & Mch. Co. \$ 135 National Tube Co. \$ 14 National Water Supply Co. \$ 15 Neville, McIver, Barnes & Co. \$ 16 New Jersey, Wire Cloth Co. \$ 16 New Jersey, Wire Cloth Co. \$ 17 Nicholson File Co. \$ 17 Nicholson File Co. \$ 17 Nicholson File Co. \$ 17 Nordberg Mfg. Co. \$ 17 Nordberg Mfg. Co. \$ 17 Nordberg Mfg. Co. \$ 17 North America Savings & 17 Northen Fire Apparatus Co. \$ 18 North America Savings & 18 North America Savings & 19 North Eastern Const. Co. \$ 10 North America Savings & 10 North America Sa	Regnas & Co., J. R. 42 Reid, J. G. 48 Renneburg & Sons Co., Edw. 46 Republic Iron & Steel Co. * Richards-Wilcox Mfg. Co. † Richmond Safety Gate Co. 31 Richmond Safety Gate Co. 32 Rigiey Füry. & Meh. Co. * Riter-Conley Co. 29 Rigiey Füry. & Meh. Co. * Riter-Conley Co. 10 Robertson Co., H. M. 38-39 Roberts Filter Mfg. Co. 10 Robertson Co., H. M. 38-39 Robins & Co., A. K. † Robins Conveying Belt Co. 10 Robins Conveying Belt Co. 10 Robinson & Co., Dwight P. 49 Robinson & Co., Dwight P. 49 Robinson & Co., T. 16 Robinson & Co., John A. 125 Rollins, Hugh. 103 Ross-Meehan Foundries, 44 Rust Engineering Co. 12 Ryerson & Son. Jos. T. 3 S Salem Fdy. & Mch. Wks. 44 Samler Bros. Co. 12 Ramon Cordage Co. 12 Samson Cordage Co. 15 Sanborn & Co., W. 14 Sanders & Sweeny 8 Sauerman Bros. 8 Savannah Bros 12 Savannah Blow Pipe Co. 12 Savannah Blow Pipe Co. 12 Savannah Creosoting Co. 40 Scalife & Sons Co., Wm. B. 10 Schofield's Sons' Co., J. S. 6	Spray Engineering Co. † Standard Brick Co. * Standard Brick Co. * Standard Prick Co. * Standard Electric Machinery Co. † Standard Pressed Steel Co. † Starrett Co., L. S. 17 Steel, John A. Jr. 48 Steele & Sons, J. C. 32 Stevens Bros. & Co. 12 Steele & Sons, J. C. 32 Stevens Bros. & Co. 12 Stewart Electric Co., John A. † Stempson, Edwin B. † Stone & Webster, Inc. 49 Strand & Co., N. A. † Stroudsburg Engine Works123 Stuebing Truck Co. † Sun Shipbuilding Co. † Sweet's Steel Co. 117 Sydnor Pump & Well Co., Inc. 134 Table of Contents. 53 Tait & Nordmeyer Engr. Co. 50 Tarr, Inc., Louis A. 114-115 Teleco, Inc. 50 Tennessee Coal, Iron & R. R. Co. 24 Tery Mig. Co. 125 Texas Co. 24 Texhoma Oll & Refining Co. 17 Thomas Grate Bar Co. 9 Fitus, E. E. 8 Todd & McCullough. 96 Foomey, Inc., Frank. 107 Transmission Ball Bearing Co. 15 Traylor Engin'rg & Mig. Co. 18 Grater Co. 16 Traylor Engin'rg & Mig. Co. 18 Grater	Brake Co. West Virginia Fire Ci Mig Co. West Virginia Rail C Wetherill & Co., Inc., Ro Wheeling Steel Froducts of White Construction Co., Geo. D. White Construction Co., Geo. D. White Construction Co., White Construction White Oak Corporation Wickwire Spencer Steel Corp. Widmer Engineering Co. Wier Lumber Co., R. W. Wilson Co., Inc. Willong Iron Works Co. Millard F. Wilson Co., The. Wilson Co., The. Wilson Co., The. Wilson Co., The. Wilson Machinery Co. Wingfield Hundley Wood Drill Works Wood & Co., T. B. Wood & Co., T. B. Wood Wood Inc. Steel Co., Al Wood's Sons Co., T. B. Wood Wood Inc. Steel Co., Al Wood's Sons Co., T. B. Wood Wood Sons Co., T. B. Wood Wood Inc. Steel Co., Al Wood's Sons Co., T. B. Wood Wood Sons Co., T. B. Wood Sons Co
Lecalla Co., Harold	facturers Assn. S National Pressed Steel Co., The. S National Steel Fabric Co. S National Steel Fabric Co. S National Steel Fabric Co. S National Transit Pump & Mch. Co. 16 National Transit Pump & Mch. Co. 135 National Tube Co. 135 National Tube Co. 14 National Water Supply Co. 135 Neville, McIver, Barnes & Co. 96 New Jersey Wire Cloth Co. 30 Newman Clock Co. 2 Newman Mig. Co. 1 Nicholson File Co. 54 Nicholson File Co. 54 Nicholson File Co. 54 Nitro Supply Co. 1 Northers Mig. Co. 1 Northoley Mig. Co. 1 Northoley Mig. Co. 1 North America Savings & Loan Co. 1 North-Eastern Const. Co. 1 North-Eastern Const. Co. 1 North-Eastern Const. Co. 2 Northern Fire Apparatus Co. 16 Norwalk Iron Works Co. 120 Nute, McGhee, Geary Co., Inc. 9 Nuveen & Co., John. 9 O'Brien Machinery Co. 16 Oconee Brick & Tile Co. 35 Oden-Elliott Lumber Co. 4 O'Brien Machinery Co. 16 Oconee Brick & Tile Co. 35 Oden-Elliott Lumber Co. 4 O'Brien Machinery Co. 16 Orange Forwarding Co. 96 Osgood Co. 127 Otis Elevator Co. 17 Owen Bucket Co. 15 Pacific Flush-Tank Co. 2 Pacific Flush-Tank Co. 2 Pacific Flush-Tank Co. 2 Pacific Flush-Tank Co. 2	Regnas & Co., J. R. 42 Reid, J. G. 48 Renneburg & Sons Co., Edw. 46 Republic Iron & Steel Co. * Richards-Wilcox Mfg. Co. † Richmond Safety Gate Co. 31 Richmond Safety Gate Co. 37 Ripley Fdry. & Meh. Co. * Riter-Conley Co. 10 Roberts Filter Mfg. Co. 10 Roberts Fooneying Belt Co. 30 Robins & Co., A. K. 38-30 Robins & Co., Dwight F. 49 Robinson & Cor., United Robinson & Cor., Dwight F. 49 Robinson & Cor., Dwight F. 49 Robinson & Cor., John A. 125 Rollins, Hugh. 103 Ross-Meehan Foundries. 44 Rust Engineering Co. 6 Russell Machine Co. 112 Ryerson & Son. Jos. T. 3 S Salem Fdy. & Mch. Wks. 44 Samler Bros. Co. 2 Samson Cordage Co. 1 Sanborn & Co., W. T. 42 Sanders & Sweeny. 44 Sanders & Sweeny. 44 Sanders & Sweeny. 45 Savannah Creowoting Co. 40 Savannah Creowoting Co. 40 Scaffe & Sons Co., Wr. B. 10 Schoedinger, F. O. 1 Schofield's Sons' Co., J. S. 6 Scofield Engineering Co. 49	Spray Engineering Co. † Standard Brick Co. * Standard Coment Construction Co. * Standard Electric Machinery Co. * \$ Standard Electric Machinery Co. * \$ Standard Pressed Steel Co. † \$ Starett Co., L. S. 17 \$ Steel, John A. Jr. 48 \$ Steele & Sons, J. C. 32 \$ Stevens Bros. & Co. 12 \$ Stewart Electric Co., John A. * \$ Stewart Iron Works Co. 2 \$ Stimpson, Edwin B. \$ \$ Stone & Webster, Inc. 49 \$ Stand & Co., N. A. † \$ Strone & Webster, Inc. 49 \$ Strone & Steeleric Co. 5 \$ Stimpson, Edwin B. \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Brake Co. West Virginia Fire Cl Mig Co. West Virginia Rail C West Virginia Rail C Wetherill & Co., Inc., Ro Wheeling Steel Products of Whictomb Co., Geo. D. White Construction C Inc. White Engineering Corp Resident Corporation. White Gale Corporation. Whiting Co., Wing Co. Wickwire Spencer Steel Corp. Widmer Engineering Co., Widmer Engineering Co., Widmer Engineering Co., Wildmer Engineering Co. Wingfield & Hundley Wood Drull Works. Wood & Co., T. B. Wood Wood Drull Works. Wood & Co., T. B. Wood Wood Bone Co., T. B. Wood Wood Machael Co., A. Wood & Sone Co., T. B. Worthington Pump & Mchy. Corp. Wright Mig Co. Wyckoff & Son Co., A. Yale & Towne Mig Co. Young & Selden Co. Young & Selden Co. Youngstown Boiler & Ta Co.
Learn Daniel B. 48 Learn Daniel B. 48 Learn Clark A. 49 Learn Co. 109 Learn Contracting Co. 48 Learn Contracting Co. 50 Learn Contracting Co. 50 Learn Contracting Co. 50 Learn Contracting Co. 42 Learn Contracting Co. 42 Learn Co. 125 Learn Co. 125 Learn Co. 125 Learn Co. 126 Learn Contracting Co. 48 Learn Learn Co. 125 Learn Co. 126 Learn Co. 127 Learn Co. 128 Learn Co. 129 Le	facturers Assn. S National Pressed Steel Co., The. S National Steel Fabric Co. S National Transit Pump & Mch. Co. 135 National Transit Pump & Mch. Co. 135 National Tube Co. 135 Neville, McIver, Barnes & Co. 96 New Jersey Wire Cloth Co. 30 Newman Clock Co. 50 Newman Clock Co. 50 Newman File Co. 54 Nicholson File Co. 54 Norther File Savings & Loan Co. North-Eastern Const. Co. 1 North-Eastern Const. Co. 1 North-Eastern Const. Co. 2 North-Eastern Const. Co. 2 North-Eastern Const. Co. 2 North-Eastern Const. Co. 2 North-Eastern Const. Co. 3 North-Eastern Const. Co. 3 North-Eastern Const. Co. 4 North-Eastern Const. Co. 3 North-Eastern Const. Co. 4 North-Eastern Const. Co. 3 North-Eastern Const. Co. 4 North-Eastern Const. Co. 1 North-Easter	Regnas & Co., J. R. 42 Reid, J. G. 48 Renneburg & Sons Co., Edw. 46 Republic Iron & Steel Co. * Richards-Wilcox Mfg. Co. † Richmond Safety Gate Co. 31 Richmond Safety Gate Co. 32 Ridgway & Son Co. 37 Ripley Fdry. & Meh. Co. * Riter-Conley Co. 10 Robertson Co., H. 48-39 Roberts Filter Mfg. Co. 10 Robertson Co., H. 48-39 Robins & Co., A. K. 5-4 Robins & Co., A. K. 5-4 Robins & Co., A. K. 5-4 Robins & Co., A. K. 5-5 Rollins, Hugh. 103 Robinson & Ort. 10 Robinson & Cor., John A. 125 Rollins, Hugh. 103 Ross-Meehan Foundries, 44 Rust Engineering Co. 12 Ryerson & Son, Jos. T. 3 S Salem Fdy. & Mch. Wks. 44 Samler Bros. Co. 12 Ryerson & Son, Jos. T. 3 Samson Cordage Co. † Sanborn & Co., W. T. 44 Sanders & Sweeny. * Saupman Bros. * Savage Mountain Fire Brick Co. 112 Savannah Blow Pipe Co. † Savannah Crescoting Co. 40 Scaffe & Sons Co., J. S. 6 Scofield Engineering Co. 49 Scranton Forging Co. 11 Sceger Machine Co. 13. 6 Seeger Machine Tool Co. 110 Sceger Machine Tool Co. 110 Seeger Machine Tool Co. 110 Seeger Machine Tool Co. 110 Sceger Machine Tool Co. 110	Spray Engineering Co	Brake Co. West Virginia Fire Cl Mig Co. West Virginia Rail C West Virginia Rail C Wetherill & Co., Inc., Ro Wheeling Steel Products of Whictomb Co., Geo. D. White Construction C Inc. White Engineering Corp Resident Corporation. White Gale Corporation. Whiting Co., Wing Co. Wickwire Spencer Steel Corp. Widmer Engineering Co., Widmer Engineering Co., Widmer Engineering Co., Wildmer Engineering Co. Wingfield & Hundley Wood Drull Works. Wood & Co., T. B. Wood Wood Drull Works. Wood & Co., T. B. Wood Wood Bone Co., T. B. Wood Wood Machael Co., A. Wood & Sone Co., T. B. Worthington Pump & Mchy. Corp. Wright Mig Co. Wyckoff & Son Co., A. Yale & Towne Mig Co. Young & Selden Co. Young & Selden Co. Youngstown Boiler & Ta Co.
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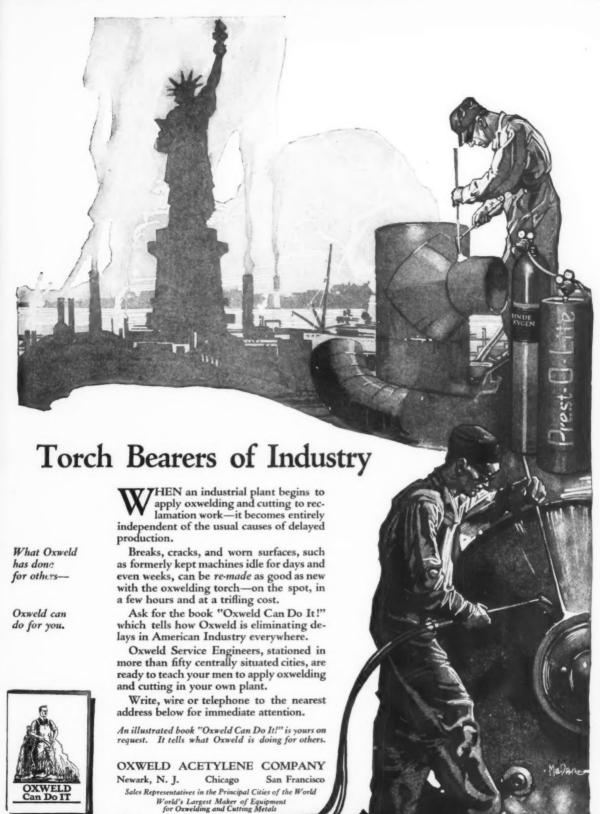
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